

Braintree District Council

LOCAL IMPACT REPORT

Longfield Solar Farm [PINS Ref: EN010118]

1. Terms of Reference

Introduction

- 1.1 This report comprises the Local Impact Report (LIR) of Braintree District Council (BDC).
- 1.2 The Council has had regard to the purpose of LIRs as set out in s60(3) of the Planning Act 2008 (as amended), DLUHC (then DCLG) Guidance for the Examination of Applications for Development Consent, the Planning Inspectorate's Advice Note One, Local Impact Reports and the Planning Inspectorates 'Example Documents', in preparing this LIR.

Scope

- 1.3 The LIR relates primarily to the impacts of the proposed development as a whole but with a particular focus on Braintree District where appropriate. The nature of the proposed development (i.e. a single entity solar farm) is such that assessing the impacts in a piecemeal fashion as dictated by District boundaries is not practicable.
- 1.4 The description of development is set out below and is taken directly from the Applicant's submission. Section 2 of the 'Guide to the Application' (Document ref: EN010118/APP/1.2) describes the proposal as follows:

'Longfield Solar Farm is a proposed solar farm which will generate renewable energy for exporting to the National Grid. It will comprise the construction, operation, maintenance and decommissioning of a solar photovoltaic electricity generating facility and Battery Energy Storage System with a total capacity exceeding 50MW. The Scheme will have an export connection to the National Grid and it also includes upgrades, modifications and an extension to the existing substation at Bulls Lodge. A detailed description of the Scheme is

included in Chapter 2: The Scheme of the Environmental Statement (EN010118/APP/6.1).

At the end of its operational life the Solar Farm will undergo decommissioning. All PV modules, mounting poles, cabling, inverters and transformers would be removed. The Bulls Lodge Substation Extension will be retained and the buried Grid Connection cable will be left in-situ following decommissioning of the solar farm.

The Order Limits set out in the Location Plan (EN010118/APP/2.5) comprise approximately 453 hectares of land located within the administrative areas of Chelmsford City Council, Braintree District Council and Essex County Council. The Order limits are located within the County of Essex, under the jurisdiction of Essex County Council and comprise the Solar Farm Site in which the electricity generating and storage infrastructure will be constructed, the Bulls Lodge Substation Site where the extension to Bulls Lodge Substation will be constructed and a corridor of land that comprises the Grid Connection Route to link the two. Two access routes are also included within the Order limits. These are Wheelers Hill and Cranham Road to the west of the Solar Farm site and Generals Lane to the south of the Bulls Lodge Substation site’.

- 1.5 The LIR does not describe the proposed development any further, relying on the applicant’s detailed description as set out in Chapter 2 of the Environmental Statement (EN010118/APP/6.1).
- 1.6 There is no relevant planning history to be described within the Order Limits which primarily encompasses undeveloped farmland, woodland, watercourses and some areas of public highway.

Purpose and Structure of the LIR

- 1.7 The LIR identifies relevant policies within the Council’s Adopted Development Plan and the extent to which the proposed development accords with these policies. Topic based headings are used as a framework to set this assessment of the impacts within and key issues are identified along with commentary on the applicant’s approach to mitigating these impacts.

2. Description of the Area

- 2.1 The development would be located in the countryside to the north of the A12, with Hatfield Peverel lying to the south-east and Chelmsford to the south-west. There are also other smaller settlements in the locality such as Terling, Flacks Green and Gambles Green to the east, Fuller Street to the north and Boreham to the south. The site would cover a significant area of land totalling over 453 hectares.

- 2.2 The majority of the site is farmland but also includes large areas of woodland a number of which are both ancient woodlands and local wildlife sites. Watercourses and areas of public highway are also encompassed. Overall it is rural in its nature with no planning history of particular relevance to the current proposal.
- 2.3 There are a number of heritage assets in the locality and several protected lanes which run through or adjacent to the site. There are also a number of public rights of way which traverse the site or parts of it.
- 2.4 Overall, the development would span a significant portion of the local countryside in what is currently one of the southern part of the District's more rural areas. The presence of the A12 to the south of the site impacts to a degree upon the tranquillity of the area although primarily to the southern portion of the DCO area.

3. Statutory Development Plan

- 3.1 The Council's statutory Development Plan consists of the Braintree District Local Plan 2013 – 2033 (herein referred to as the 'Adopted Local Plan'). Section 1 of the Local Plan was adopted on 22nd February 2021, and Section 2 of the Local Plan was adopted on 25th July 2022. As such, the Local Plan is therefore considered to be up to date.
- 3.2 There are also a number of Neighbourhood Plans within the District and where applicable these also form an important part of the Development Plan. The Hatfield Peverel Neighbourhood Plan area covers part of the southern section of the Longfield DCO site and is therefore applicable to this area of the site.
- 3.3 The Council also has a number of Supplementary Planning Documents. The Essex Parking Standards (2009); the External Artificial Lighting SPD (2009) and the Essex Coast RAMS SPD (2020) are of relevance here.
- 3.4 Finally at the County level, the Essex Minerals Local Plan (2014) and the Essex and Southend on Sea Waste Local Plan (2017) are also material considerations in terms of Development Plan considerations, however these are County matters which are addressed by Essex County Council in their LIR submission and are not therefore referenced further here.

Assessment of Impacts and Adequacy of Response

4. Introduction

- 4.1 The following sections identify the relevant policies within the Development Plan and other local policy, the key issues raised by the proposed

development and the extent to which the applicant addresses them and thus the proposal complies with local policy.

5. The Principle of Development

Development Plan Policies

- 5.1 Policy SP1 of the Adopted Local Plan states that the Local Planning Authorities 'will take a positive approach that reflects the presumption in favour of sustainable development contained within the National Planning Policy Framework'.
- 5.2 Policy SP3 of the Adopted Local Plan addresses the spatial strategy for North Essex, identifying that existing settlements will be the principal focus for additional growth with a settlement hierarchy to be identified. Beyond the main settlements the diversification of the rural economy and conservation and enhancement of the natural environment will be supported.
- 5.3 Policy SP6 of the Adopted Local Plan identifies the need for all development to be supported by the provision of infrastructure, services and facilities.
- 5.4 Policy LPP1 of the Adopted Local Plan states that development outside development boundaries will be confined to uses appropriate to the countryside to protect the intrinsic character and beauty of the countryside.
- 5.5 Policy LPP71 of the Adopted Local Plan sets out the Council's approach to climate change with the intention that the District will meet part of its future energy needs through renewable or low carbon energy sources.
- 5.6 Finally, Policy LPP73 of the Adopted Local Plan is of particular importance as it relates specifically to proposals for renewable energy schemes. It is a detailed policy and the salient points are set out below. LPP73 states that *'proposals for renewable energy schemes will be encouraged where the benefit in terms of low carbon energy generating potential outweighs harm to or loss of a number of criteria'*. These consist of:
- Natural landscape or other natural assets
 - Landscape character
 - Nature conservation
 - Best and most versatile agricultural land
 - Heritage assets, including the setting of heritage assets
 - Public rights of way
 - Air traffic and safety

- Ministry of Defence operations
 - Watercourse engineering and hydrological impact
- 5.7 Policy LPP73 also states that *'renewable energy schemes should not result in pollution to air, land or water'* and that they will need to demonstrate *'that they will not result in unacceptable impacts on residential amenity including visual impact, noise, shadow flicker, reflection, odour, fumes and traffic generation'*.
- 5.8 Further requirements include that the development *'must be capable of efficient connection to existing national energy infrastructure'*.
- 5.9 The Policy also states that *'In considering planning applications, the Local Planning Authority will take into account the energy generating potential of the scheme'*.
- 5.10 With regard to Solar Farms, it gives further guidance stating that *'Where appropriate, large scale solar farms shall be accompanied by a sequential assessment which considers alternative brownfield sites and lower quality agricultural land. Compelling justification must be provided for proposals on high quality agricultural land. Where proposals are accepted on agricultural land, they should demonstrate how the installation allows for continued agricultural use and/or enhances biodiversity around the panels'*.
- 5.11 Decommissioning is also addressed with a requirement for a condition to be attached to planning permissions to require the site to be decommissioned and restored when energy generation use ceases or becomes non-functioning for a period of 6 months or more with such a scheme including measures to restore and protect soil quality.

Commentary

- 5.12 The Development Plan is supportive of the general principle of renewable energy schemes and actively encourages them where the benefits outweigh the harms, subject to the satisfaction of a number of detailed criteria. Therefore, the general principle of the proposed development is in accordance with the adopted Development Plan and it is the detailed assessment of such schemes against the required criteria which is important when establishing whether a proposal is likely to be acceptable or not.
- 5.13 In terms of the wider context, Braintree District Council declared a climate emergency in 2019 and committed to reducing its own carbon emissions to zero by 2030 and supporting the wider district to do the same by 2030. The Council subsequently produced a new climate change strategy in 2021, contained within which is a general ambition to increase the generation of renewable energy in the district. Taking that into account, in general terms:

- The Council encourages the generation of appropriate green energy infrastructure in the District aligning with the national net zero target.
- The Council supports the consideration of embodied carbon within the proposed solar development, evidencing the surplus of carbon that will be offset by producing energy from a renewable source with a combined saving of 4.4m tonnes of carbon.
- The Council supports the protection of existing woodland and hedging and the proposed new woodland and hedging as long term carbon sinks, as well as the creation of new grassland for biodiversity enhancement.
- The Council acknowledges that the scheme is for the purpose of battery storage and generating energy to go into the national grid, but would ask that in the event that the DCO is granted that if local hard wiring opportunities emerged during the duration of the use of the site that they would be given due consideration and opportunity for inclusion.

Adequacy of the Application/DCO

- 5.14 The DCO is adequate with respect to the description of the development which it proposes to authorise.

6. Air Quality and Emissions

Development Plan Policies

- 6.1 Policy LPP70 of the Adopted Local Plan requires proposals for all new development to prevent unacceptable risks from all emissions and other forms of pollution and to ensure no deterioration of air quality. It states that development will not be permitted where there are likely to be unacceptable impacts upon air quality and the health and safety of the public.
- 6.2 Policy FI1 of the Hatfield Peverel Neighbourhood Plan is primarily a Transport and Access Policy but does also specifically state that *'all new developments should prevent unacceptable risks from emissions and all forms of pollution (including air, water and noise pollution) to ensure no deterioration of current standards'*.

Key Local Issues

- 6.3 The proposal is for a solar farm and therefore the main impacts in relation to air quality would stem from the construction phase of the development rather than from its operational phase. Emissions from construction vehicles and windblown dust are the two primary concerns and it is essential that relevant controls would be in place during the construction phase.

Adequacy of the Application/DCO

- 6.4 The application has been assessed by the Council's Environmental Health Officer. Chapter 14 of the Environmental Statement considers the relevant legislation and objectives in particular for nitrogen dioxide and particulate matter.
- 6.5 Table 14.2 states that *'the Planning Inspectorate concludes that having regard to the nature and characteristics of the proposed solar farm then it would not lead to significant effects in terms of air quality and this matter can be scoped out of the Environmental Management Statement'*.
- 6.6 This conclusion is supported in Chapter 14, Section 14.5.4 which confirms that there are no significant changes to traffic volumes at the operational stage.
- 6.7 A qualitative assessment of emissions to air for construction in accordance with IAQM guidance was carried out and assumes the worst case of total construction emissions rather than a phased approach to the construction (14.5.8). Therefore, the actual emissions at any one time will be lower than this assumed worst case.
- 6.8 In 14.5.3 it is stated that fugitive emissions at the time of construction do not meet the threshold for when a further assessment is required. Traffic movements at time of construction also do not meet the threshold for further assessment and dispersion modelling.
- 6.9 The scoping assessment concludes that the implementation of best practicable means during construction and decommissioning will be sufficient to control emissions to air to minimise emissions so that the impact to nearby residents is not significant.
- 6.10 BDC Environmental Health agrees with the conclusions in regards to air quality impacts. Environmental Health would support the submission of comprehensive dust control measures which would need to be adopted by the contractor at the time of construction if the project proceeds and when the contractor has been appointed. The DCO requires this by way of a Construction Environmental Management Plan.
- 6.11 BDC consider that there is a comprehensive assessment of Air Quality and that subject to controls being put in place to limit dust levels and employment of best practice means then no significant adverse effects are identified. BDC do not therefore envisage any impacts on air quality that cannot be adequately controlled by the DCO and its requirements and subject to these controls the development complies with Local Policy.

7. Biodiversity and Geological Conservation

Development Plan Policies

- 7.1 Policy SP7 of the Local Plan requires all new developments to protect and enhance assets of natural value and to incorporate biodiversity creation and

enhancement measures. It also requires an integrated and connected network of green and blue infrastructure.

- 7.2 Policy SP2 of the Adopted Local Plan secures financial contributions from relevant developments toward mitigation measures in accordance with the Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy 2018-2023 (RAMS) (although the requirement for such contributions relates only to residential schemes). The Policy does however identify the importance of ensuring the safeguarding of these protected coastal sites.
- 7.3 Policy LPP63 of the Adopted Local Plan states that development must take available measures to ensure the protection and enhancement of the natural environment, habitats, biodiversity and geodiversity of the District. All developments are expected, where appropriate, to contribute towards the delivery of new Green Infrastructure to develop a network of multi-functional green spaces and natural features throughout the District.
- 7.4 Policy LPP64 of the Adopted Local Plan is a lengthy and detailed policy which seeks to protect protected species, priority species and priority habitat. It states that in relation to sites of national or international designation *'sites designated for their international importance to nature conservation; including Ramsar sites, Special Protection Areas, Special Areas of Conservation, should be protected from development likely to have an adverse effect on their integrity whether they are inside or outside the District. Proposals which are considered to have a likely significant effect on these sites will require an Appropriate Assessment in line with European and domestic legislation'*.
- 7.5 In relation to Protected Species, Priority Species and Priority Habitat, Policy LPP64 states that proposals which result in a net gain in priority habitat will in principle be supported, subject to other policies in the Development Plan. It goes on to state that *'Where priority habitats are likely to be adversely impacted by the proposal, the developer must demonstrate that adverse impacts will be avoided, and impacts that cannot be avoided are mitigated on-site. Where residual impacts remain, off-site compensation will be required so that there is no net loss in quantity and quality of priority habitat in Braintree District'*. It also requires Ecological Surveys to be submitted by Developers to demonstrate that an adequate mitigation plan is in place.
- 7.6 Policy LPP64 also states that *'proposals resulting in the loss, deterioration or fragmentation of irreplaceable habitats such as ancient woodland or veteran trees will not normally be acceptable unless the need for, and benefits of the development in that location clearly outweigh the loss'*.
- 7.7 Finally, the Policy also seeks to protect Local Wildlife Sites, Local Nature Reserves and Special Roadside Verges.

- 7.8 Policy LPP65 of the Adopted Local Plan covers Tree Protection. Preservation Orders may be placed on prominent trees which contribute to the character of the local landscape and have a reasonable life expectancy and trees which make a significant positive contribution to the character and appearance of their surroundings should in general be retained unless there is a good Arboricultural reasons for their removal. Trees of higher quality are also identified as being a material consideration in the planning process. Overall, the Policy seeks to retain and protect trees and to ensure that unnecessary, poorly considered or excessive tree loss is prevented.
- 7.9 Policy LPP66 of the Adopted Local Plan addresses the protection, enhancement, management and monitoring of Biodiversity. It states that *‘Development proposals shall provide for the protection of biodiversity and the mitigation or compensation of any adverse impacts. Additionally, enhancement of biodiversity should be included in all proposals, commensurate with the scale of the development’*. Some examples of enhancement are given such as watercourse improvements to benefit biodiversity and water quality, habitat creation and wildlife links.
- 7.10 Policy HPE1 of the Hatfield Peverel Neighbourhood Plan also requires the retention and enhancement of trees, hedgerows and habitats including ancient woodlands. The Policy is explicitly supportive of the creation of new areas of habitat and requires developments to meet a number of criteria which include restricting planting to native species and ensuring the protection and enhancement of the natural environment, habitats, biodiversity and geo-diversity of the Parish.
- 7.11 HPE1 also specifically supports the development of a network of wildlife corridors alongside public rights of way.

Key Local Issues

- 7.12 The River Ter Site of Special Scientific Interest (SSSI), which is notable for its fluvial geomorphology, is present on the northern boundary of the site. In addition, the site is situated within the SSSI Impact Risk Zone of Blake’s Wood and Lingwood Common SSSI and Woodham Common SSSI. Furthermore, Chelmer Valley Riverside Local Nature Reserve (LNR) has been considered within the Applicant’s assessment due to it being located within 5km of the site.
- 7.13 Chapter 8: Ecology of the Environment Statement [EN010118/APP/6.1] outlines that there are 31 non-statutory sites designated for nature conservation within 2km of the Order limits, which has been outlined in Table 8-5. This includes ten non-statutory designated sites (all Local Wildlife Sites) which are directly adjacent to the Order limits. However, there is only one area where the development requires work within the footprint of a non-

statutory designated site - Boreham Road Gravel Pits Local Wildlife Site (LoWS).

7.14 Chapter 8: Ecology of the ES [EN010118/APP/6.1] outlines that a number of Priority habitats are present across the site. This includes broad-leaved semi-natural woodland (Lowland Mixed Deciduous Woodland), Pond – Priority habitat (Pond 7) and native hedgerows.

7.15 The Council note that the site area contains a number of ancient woodlands, which are designated as Local Wildlife Sites. In addition, the field assessments recorded a number of veteran trees within the hedgerows and woodlands within the site. The site also encompasses a number of established hedgerows. Safeguarding trees and hedgerows and preventing any unnecessary or unjustified loss is a priority for BDC and is always a key material consideration in the determination of any planning application.

7.16 The Applicant's Habitats Regulations Assessment identifies that there are no European sites within the Order limits, but the following sites were scoped in for further assessment:

- Essex Estuaries Special Area of Conservation (SAC)
- Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA)
- Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar site

Adequacy of the Application/DCO

7.17 The application has been assessed by the Council's Ecology Consultant and the Council's Tree Officer.

Baseline Information/legislation:

7.18 The desktop assessment has been prepared in consultation with the Essex Field Club and these records have informed the survey requirements. In addition, designated sites, protected and priority habitats and species have been appropriately considered within the desk study of the assessment. (Records from new or updated surveys undertaken should be shared with the Essex Field Club to update the Local Biological Records Centre database).

7.19 The reports accompanying the DCO application follow the Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines and relevant expertise/qualifications of the competent experts involved in the preparation of the Environment Statement have been provided, in accordance with Regulation 14 of the EIA Regulations. Furthermore, BDC are satisfied that the summary of the relevant legislation is up to date and complete.

Internationally Designated Sites:

- 7.20 A 'shadow' Habitats Regulations assessment [EN010118/APP/6.7] has been prepared for this scheme to determine whether there will be a Likely Significant Effect upon nearby European Sites from the proposed construction, operation and decommissioning of the Solar Farm. The Habitats Regulations Assessment identifies that there are no European sites within the Order limits, but the following sites were scoped in for further assessment:
- Essex Estuaries Special Area of Conservation (SAC)
 - Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA)
 - Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar site
- 7.21 The 'shadow' Habitats Regulations Assessment considered the potential impacts of the scheme upon terrestrial and aquatic ecology, including the qualifying features of the European Sites. It also considered potential impacts from atmospheric and aquatic pollution, with consideration of potential impact pathways to relevant European Sites.
- 7.22 To determine impacts upon the qualifying features of the European Sites a wintering bird survey was completed in line with best practice methodology. This confirmed that Golden Plover, as cited as an interest feature on the Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar, was present within the site, with a peak (and only) count of 35 individuals in January 2020. However, this count does not indicate a significant proportion (i.e. 1%) of the designated site population of Golden Plover is utilizing the site. As a result, BDC agree that the site is not functionally linked, nor functionally important, to the designated sites.
- 7.33 In terms of atmospheric pollution, the 'shadow' Habitats Regulations Assessment identified that the only pollutant likely to be associated with construction of the Scheme is NO_x and dust which will be primarily determined by the associated traffic movements. The report highlights that the works are situated a sufficient distance away from the European Sites to result in impacts to the protected vegetation from change in NO_x concentration. Furthermore, the report outlines that there are no pathways for changes in air quality, through construction or decommissioning related airborne dust. As a result, BDC agree with this assumption and are satisfied that this is based on up-to-date guidance.
- 7.34 In terms of water pollution, the 'shadow' Habitats Regulations Assessment identifies that there is a possible hydrological connectivity between the designated site and watercourse within the immediate vicinity of the site. This is because the River Ter is present within 50 metres of the site, which is connected to the European Sites by a linear distance of approximately 17.5km. However, due to this significant distance, it has been concluded that the dilution factors will be so great that any pollution is likely to be well below the limits of detection. BDC support this conclusion and are satisfied that the measures proposed within the Outline Construction Environmental Management Plan [EN010118/APP/7.10] (Table 3-4: Flood Risk, Drainage

and Surface Water) would further prevent any issues from pollution upon the River Ter due to surface water run-off.

- 7.35 The 'shadow' Habitats Regulations Assessment has also considered the in-combination effects with other plans or projects, in line with the Appendix 5A: Long List of Cumulative Schemes [EN010118/APP/6.2]. This concluded that there are no in combination effects on the European sites identified due to the distances from the designated sites to the referenced Schemes. Therefore, BDC also support this conclusion and are satisfied that there would not be impacts from the site in-combination with other plans or projects.
- 7.36 As a result, BDC agree that the scheme would not result in a likely significant effect on any European Sites either alone or in combination with other projects or plans. BDC also agree that sufficient information has been provided to allow the competent authority to demonstrate that it has met its statutory duties under the Conservation of Habitats and Species Regulations 2017 (as amended). Therefore, the scheme also accords with local planning policy requirements insofar as it would avoid impacts on internationally designated nature conservation sites.

Nationally Designated Sites:

- 7.37 Chapter 8: *Ecology of the Environment Statement* [EN010118/APP/6.1] outlines that there are no statutory national nature conservation sites within the Order limits. However, the River Ter Site of Special Scientific Interest (SSSI), which is notable for its fluvial geomorphology, is present on the northern boundary of the site. In addition, the site is situated within the SSSI Impact Risk Zone of Blake's Wood and Lingwood Common SSSI and Woodham Common SSSI. Furthermore, Chelmer Valley Riverside Local Nature Reserve (LNR) has been considered within the assessment due to it being located within 5km of the site.
- 7.38 Chapter 8: *Ecology of the ES* [EN010118/APP/6.1] (Table 8-9: Determination of relevant ecological features – Designated Sites) outlines the construction, operational and decommissioning impacts of the scheme upon the above statutory national nature conservation sites.
- 7.39 In terms of the River Ter SSSI, it was concluded that the construction of the scheme would not directly impact on habitat within at least 50m from the river. In addition, other adjacent fields within the Order limits would be used for habitat creation rather than built development. Further mitigation measures (e.g. security fencing and pollution controls) have been included within the Outline Construction Environmental Management Plan [EN010118/APP/7.10] to further minimise the risk of incursion, as well as avoiding impacts upon the important ecological features of the river. It has also been determined that the operational phase of the development would cause no significant adverse effects on the River Ter SSSI, as the SuDS would be designed to ensure no increase in flood risk to the Order limits or elsewhere.

- 7.40 In terms of Blake's Wood and Lingwood Common SSSI, Woodham Common SSSI and Chelmer Valley Riverside LNR, it was concluded that the Scheme would not directly impact (i.e. construction, operational and decommissioning effects) these designated sites. This was because these sites were not directly connected to the Order limits and were a sufficient distance away (over 3km). BDC support this conclusion and are satisfied that the measures proposed within the Outline Construction Environmental Management Plan [EN010118/APP/7.10] would ensure standard environmental protection measures during construction.
- 7.41 Consequently, BDC have considered the proposed measures and agree that the scheme would not result in adverse impacts upon any nationally designated ecological sites. As a result, BDC are satisfied that it can demonstrate that it has met its statutory duties for designated sites under the Wildlife Countryside Act 1981 (as amended). The scheme also therefore accords with local planning policy by avoiding impacts on nationally designated ecological sites.

Locally Designated Sites:

- 7.42 Chapter 8: Ecology of the Environment Statement [EN010118/APP/6.1] outlines that there are 31 non-statutory sites designated for nature conservation within 2km of the Order limits, which has been outlined in Table 8-5. This includes ten non-statutory designated sites (all Local Wildlife Sites) which are directly adjacent to the Order limits. However, there is only one scheme where the development requires work within the footprint of a non-statutory designated site - Boreham Road Gravel Pits Local Wildlife Site (LoWS).
- 7.43 Chapter 8: Ecology of the ES [EN010118/APP/6.1] (Table 8-9: Determination of relevant ecological features – Designated Sites) outlines the construction, operational and decommissioning impacts of the scheme upon the above non-statutory designated sites.
- 7.44 In terms of Boreham Road Gravel Pits Local Wildlife Site (LoWS), it is noted that the works would require a grid connection through the LoWS, but impacts would be minimised by carrying out Horizontal Directional Drilling (HDD). BDC support this methodology to minimise the loss of habitat, as well as the precautionary measures contained within the Outline Construction Environmental Management Plan [EN010118/APP/7.10]. However, BDC note that Figure 10 – 15 (Vegetation Removal Plan) outlines an area south of this grid connection where vegetation may be removed. This vegetation is within the Boreham Road Gravel Pits LoWS and is not referenced as a potential impact within the referenced documents [EN010118/APP/6.1] or [EN010118/APP/7.10].
- 7.55 As a result, further clarification is sought on this matter to determine whether any vegetation clearance is required. This is necessary to confirm whether

there will be any additional impacts upon the Boreham Road Gravel Pits Local Wildlife Site (LoWS). However, BDC agree that the scheme will not affect the LoWS during the operational phase or decommissioning phase.

- 7.56 In terms of the other non-statutory designated sites within the order limit, BDC agree that the construction of the Scheme would not directly impact on habitat within these designated sites. This would be avoided by the provision of measures to ensure incursion into designated sites does not occur (e.g. Buffer zones of a minimum of 15m and security fencing). BDC also support the measures proposed within the Outline Construction Environmental Management Plan [EN010118/APP/7.10] which would ensure standard environmental protection measures during construction and would offer additional protection to these LoWS. Furthermore, BDC agree that the scheme would not affect the LoWS during the operational phase or decommissioning phase. BDC are pleased to see that woodland and hedgerow planting would be implemented across the site to strengthen ecological networks.
- 7.57 As a result, BDC are generally satisfied that sufficient information has been provided to conclude that there would be no potential for significant effects on non-statutory locally designated wildlife sites as a result of the Scheme. However, further clarification should be provided to determine whether direct vegetation removal will be required for Boreham Road Gravel Pits Local Wildlife Site (LoWS), as outlined within Figure 10 – 15 (Vegetation Removal Plan), which would likely be a minor adverse effect.

Ancient woodland and veteran trees:

- 7.58 BDC note that the site area contains a number of ancient woodlands, which are designated as Local Wildlife Sites. In addition, the field assessments recorded a number of veteran trees within the hedgerows and woodlands within the site.
- 7.59 Chapter 8: Ecology of the ES [EN010118/APP/6.1] outlines that all ancient woodlands would have a 15-25m grassland buffer in line with Government guidelines. In addition, lighting spill would be implemented to avoid impacts upon these irreplaceable habitats and new planting would be undertaken to strengthen habitats linkages between LoWS. As a result, BDC agree that impacts would be avoided upon ancient woodlands, if the scheme follows the measures contained within the Outline Construction Environmental Management Plan [EN010118/APP/7.10]. In addition, BDC are satisfied that adverse impacts would be avoided during the operation and decommissioning phases of the development.
- 7.60 BDC are also satisfied that sufficient information has been provided to demonstrate that all Veteran trees would be protected through the lifetime of the development, with protection measures in line with British Standard BS 5837: Trees in relation to design, demolition and construction.

7.61 As a result, BDC are satisfied that Ancient woodland and veteran trees would be protected and that the development would accord with local planning policy requirements in this regard.

Protected Species and Priority species:

7.62 To determine the likelihood of protected species and priority species/habitat being present and affected by the proposed development, BDC have considered the following survey reports contained as appendices within the Environmental Statement [EN010118/APP/6.2]:

- Volume 2: Appendix 8B Preliminary Ecological Appraisal
- Volume 2: Appendix 8C Flora Survey Report
- Volume 2: Appendix 8D Aquatic Ecology Survey Report, including Macroinvertebrates
- Volume 2: Appendix 8E Great Crested Newt Survey Report
- Volume 2: Appendix 8F Reptile Survey Report
- Volume 2: Appendix 8G Wintering Birds Survey
- Volume 2: Appendix 8H Breeding Birds Survey
- Volume 2: Appendix 8I Bat Survey Report
- Volume 2: Appendix 8J Badger Survey (Confidential)
- Volume 2: Appendix 8K Riparian Mammal Survey Report

7.63 BDC are satisfied that these assessments have been conducted during the appropriate time of year in line with standard methodologies. As a result, BDC have the following comments for each survey report:

Appendix 8B Preliminary Ecological Appraisal

7.64 BDC generally support the conclusions of the Preliminary Ecological Appraisal. This report has been compiled with reference to BS 42020:2013 Biodiversity – Code of Practice for Planning and Development and CIEEM Report Writing Guidelines.

7.65 It is highlighted that BDC initially recommended that the Preliminary Ecological Appraisal should include recommendations for Hazel Dormouse surveys depending on the vegetation clearance requirements of the finalised design. Furthermore, it was queried whether surveys should be conducted for rare/notable terrestrial invertebrate species.

7.66 However, further meetings held between BDC and the developer's ecologist identified that they considered that neither survey is necessary to accompany the DCO Submission. This is because the important habitat for Hazel Dormouse or rare/notable terrestrial invertebrate species (i.e., woodland, mature hedges and scrub) within the site would be retained as part of the Scheme. In addition, the arable land was also considered to contain limited suitability for rare/notable terrestrial invertebrate species.

- 7.67 As a result, BDC support this conclusion and agree that no further surveys are required for Hazel Dormouse or terrestrial invertebrates if this is the case. In addition, BDC consider the proposed measures as outlined within the Biodiversity Design Strategy [EN010118/APP/7.3] would result in significant habitat creation and increased ecological connectivity for Hazel Dormouse (if present within the site) and Terrestrial Invertebrates.
- 7.68 However, BDC note that minor vegetation removal may be required within Boreham Road Gravel Pits Local Wildlife Site (LoWS), as outlined within Figure 10 – 15 (Vegetation Removal Plan) and that approximately 450.6m of hedgerow sections would be removed across the Order limits. Therefore, whilst it is considered potentially not reasonable to carry out dormouse surveys for minor vegetation removal, BDC query whether presence/likely absence surveys and/or precautionary mitigation measures **should** be implemented for Hazel Dormouse if the habitat is suitable for the species at these locations.

Appendix 8C Flora Survey Report

- 7.69 BDC are satisfied with the conclusions of the Flora Survey Report. This identified that no protected plant species were present within the Order limits (Wildlife and Countryside Act - Schedule 9). However, some rare arable flora was noted within the site, including Corn Chamomile (classified as endangered in the Red Lists for UK and England), albeit no specific area within the site has been defined as Arable Field Margin Priority habitat.
- 7.70 Furthermore, no invasive (Wildlife and Countryside Act -Schedule 9) plant species were noted during the surveys within the Order limits. However, the presence of New Zealand Pigmyweed was recorded in aquatic habitat within nearby lakes to the west of the development. Given there is always a risk that invasive species may quickly spread on to suitable habitats within the Order limits (e.g. via machinery used during the construction phase), BDC support the proposal within the Outline Construction Environmental Management Plan [EN010118/APP/7.10] to provide a Biosecurity Management Plan which would set out procedures to ensure that no invasive species are brought onto the site.

Appendix 8D Aquatic Ecology Survey Report, including Macroinvertebrates:

- 7.71 BDC support the conclusions of the Aquatic Ecology Surveys. The surveys identified a number of rare/notable macroinvertebrate species, which will be reliant on specific requirements in order to reproduce. Therefore, BDC support the proposal to maintain riparian vegetation around the ponds and ensure good water quality.

Appendix 8E Great Crested Newt Survey Report:

- 7.72 BDC note that the Great Crested Newt Surveys have now been finalised for the ponds within 500 metres of the site. The initial assessment concluded that a single male Great Crested Newt was present in pond P5 April 2020, which is located within the Order Limits. Further eDNA surveys within 250 metres of the site then confirmed positive eDNA samples in waterbodies: P42, P44, P47, P48, P84, P85, P86 and P90.
- 7.73 Given the design of the proposal, BDC agree that no breeding ponds would be lost to the scheme and that the development would result in significant benefits for the existing Great Crested Newt population. However, BDC note that neither Chapter 8: *Ecology* of the Environmental Statement [EN010118/APP/6.1] nor the Outline Construction Environmental Management Plan [EN010118/APP/7.10] contain any reasonable avoidance measures for this European Protected Species. As a result, BDC recommend that this should be undertaken for this scheme, given the known low population present within the Order limit, unless further reasonable justification can be provided on why the applicant's ecologist thinks that precautionary measures are not required for this European Protected Species.
- 7.74 Alternatively, the scheme could be registered under Natural England's District Level Licensing (DDL) for Great Crested Newt – see <https://www.gov.uk/government/publications/great-crested-newts-district-level-licensing-schemes> - where sites can be registered to be covered by this strategic mitigation scheme.
- 7.75 However, BDC recommend good practice measures to avoid impacts to mobile species including amphibians are embedded into the Outline Construction Environmental Management Plan and it is suggested that there are significant opportunities to enhance the habitat within the site boundary for Great Crested Newt.

Appendix 8F Reptile Survey Report:

- 7.76 The Reptile Survey did not confirm the presence of reptiles within the site. As a result, BDC support the proposed reasonable avoidance measures contained within the Outline Construction Environmental Management Plan [EN010118/APP/7.10], to minimise any potential risk of killing and injury to these protected species. It is also considered that the development would result in significant enhancements for reptiles and could also be a good receptor site (following the establishment of habitat) for future developments within Braintree DC and Chelmsford BC.

Appendix 8G Breeding Birds Survey:

- 7.77 The Breeding Bird Survey indicates that the scheme would retain as much of the existing boundary habitat as is practicable. BDC support this approach to ensure minimal habitat loss. In addition, BDC are satisfied that the landscape masterplan would create further breeding and foraging options for the recorded bird species.
- 7.78 It is highlighted that BDC requested further clarification on whether the development would result in impacts to Skylark, a ground nesting Priority species. As a result, BDC are pleased to see that Chapter 8: Ecology of the Environment Statement [EN010118/APP/6.1] outlines that the development would result in the conversion of 275 hectares of arable habitats (which are often temporary in nature) to permanent grassland beneath and between the solar arrays, including the provision of 83 hectares of new habitats managed for biodiversity. This would provide significant foraging and nesting opportunities to maintain the existing population of 46 territories noted across the site and would potentially increase the productivity of the Skylark population within the Order limits.
- 7.79 Furthermore, BDC note that the development would potentially result in a temporary disturbance during construction and decommissioning to breeding Red Kite, Hobby and Barn Owl (during the breeding season only), where these species are breeding within 200m of the Order limits. As a result, BDC support the proposal to provide pre-commencement surveys for sensitive breeding birds, as listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

Appendix 8H Wintering Birds Survey:

- 7.80 BDC note that the Wintering Bird Survey has identified that populations of Lesser-spotted Woodpecker and Tree Sparrow are present within the site which are considered non-breeding assemblages of County Level importance. However, BDC still agree that impacts (habitat loss, disturbance of habitats and pollution) from the development can be minimised/avoided during the construction and operation phases as set out within Table 8-10 of Chapter 8: Ecology of the Environmental Statement [EN010118/APP/6.1].
- 7.81 It is highlighted that BDC requested further clarification on whether the site contains functionally linked land, due to presence of foraging habitat Golden Plover during the overwintering period. Consequently, BDC support the conclusions of the 'shadow' Habitats Regulations Assessment, which confirms that the presence of 35 individual Golden Plover does not indicate a significant proportion (i.e. 1%) of the Blackwater Estuary SPA and Ramsar site (the nearest designated site) population of Golden Plover.
- 7.82 However, it is highlighted that further clarification was also sought for Lapwing, given that a peak count of 17 individuals was also recorded in March 2020. This species is a Priority Species and BoCC Red list species and is listed as being at risk due to the loss of open arable habitat from solar farms.

In addition, Lapwing is also a qualifying feature of the Dengie Special Protection Area (SPA) and Ramsar site, Stour and Orwell Estuaries SPA and Ramsar site, Foulness SPA and Ramsar site and the Thames Estuary and Marshes SPA and Ramsar site, due to the presence of important non-breeding over-wintering assemblages.

- 7.83 It is acknowledged that Lapwing was not included within the submitted Shadow Habitats Regulations Assessment, as the above designated sites were scoped out due to the distance of the Habitats sites to the site boundary. In addition, that site does not contain a significant proportion (i.e. 1%) of the Lapwing population for the relevant Habitats Sites. Consequently, BDC are satisfied that no further measures are required, but it would have been more robust to have this clarified further within the Chapter 8: Ecology of the Environmental Statement [EN010118/APP/6.1].

Appendix 8/ Bat Survey Report:

- 7.84 BDC note that the Bat Survey Report has concluded that no trees or structures with bat roost potential would be impacted by the proposed. Therefore, no further detailed roost presence/absence or characterisation surveys are required within the surveyed locations. However, BDC note that minor vegetation removal may be required within Boreham Road Gravel Pits Local Wildlife Site (LoWS), as outlined within Figure 10 – 15 (Vegetation Removal Plan) and that this area (ref. 1022, 1023) could not be accessed as part of the Preliminary Bat Roost Assessment (Figure A4.3). Consequently, BDC query whether any vegetation to be removed within this area would contain trees with potential roost features for bats and seek clarification for these European Protected Species.
- 7.85 BDC also note that commuting and foraging habitat for bats is assessed as of up to County/District Importance, due to the maternity roosts of common species and small numbers/individual roosts of rarer species such as Barbastelle, a species listed in Appendix II of both the Bern and Bonn Conventions to which the UK is a signatory. As a result, sensitive lighting measures will be required for foraging and commuting bats during the construction, operation and de-commissioning phases of the development. Therefore, it is indicated that BDC support the outlined measures contained within the Outline Construction Environmental Management Plan [EN010118/APP/7.10] and Outline Operational Environmental Management Plan [EN010118/APP/7.11]. However, it is advised that a lighting design condition should be secured for each phase of development.
- 7.86 It is also accepted that it is too early to fully predict long-term effects on bat populations from solar farms, as large-scale solar farms have not been routinely monitored to predict long-term effects on bat populations. Therefore, BDC strongly support the proposal to include monitoring to improve

confidence in the assessment of residual adverse or beneficial effects, which would provide a greater dataset to inform future large scale solar schemes.

Appendix 8J Badger Survey:

- 7.89 The Badger surveys undertaken in 2020 and 2021 identified the presence of Badger within the Order limits, but the proposed works would not impact upon their breeding or resting places for the species. In addition, foraging habitat for the protected species would be retained and would be enhanced once the scheme is in operation.
- 7.90 BDC support the proposal to undertake a pre-commencement check, as outlined within the Outline Construction Environmental Management Plan [EN010118/APP/7.10], to fully determine the potential impacts upon this mobile species and identify whether any further mitigation/enhancement measures or a development licence application would be required for this scheme.

Appendix 8K: Riparian Mammal Survey Report:

- 7.91 BDC are satisfied the conclusions of the Riparian Mammal Survey, which confirmed Water Vole to be absent from the River Ter and that Otter were using the water course for foraging and commuting purposes. Based on the scheme layout, BDC agree that the development would provide a suitable buffer to the River Ter. As a result, no further measures are required for riparian mammals.

Priority Habitats:

- 7.92 Chapter 8: Ecology of the ES [EN010118/APP/6.1] outlines that a number of priority habitats are present across the site. This includes broad-leaved semi-natural woodland (Lowland Mixed Deciduous Woodland), Pond – Priority habitat (Pond 7) and native hedgerows.
- 7.93 The Biodiversity Net Gain Report [EN010118/APP/6.5] outlines that a total of 6.35 units of Lowland Mixed Deciduous Woodland Priority habitat would be removed for this development. As a result, the habitat would be compensated by 80.20 units of other woodland; broadleaved/mixed. Consequently, the development would result in a trading issue, as the proposed habitat to be created would be less distinctive than the habitat lost. It is not clear where this 6.35 units of Lowland Mixed Deciduous Woodland would be removed within the Order limit. Therefore, BDC query whether there is scope to remove this trading issue from the development.
- 7.94 A total of 450.6m of native hedgerow sections would be removed across the Order limits, but new native hedgerows would be created across the site, which would be equivalent to a 20% net gain of hedgerows. As a result, BDC

a satisfied that sufficient evidence has been provided to demonstrate that this priority habitat would be sufficiently compensated across the Order limit.

- 7.95 In terms of Pond 7, the Chapter 8: Ecology of the ES [EN010118/APP/6.1] outlines that this priority habitat would be retained and enhanced. Precautionary measures to avoid impacts during the construction phase upon this priority habitat have also been included within the Outline Construction Environmental Management Plan [EN010118/APP/7.10].

Biodiversity Net Gain/Landscape Management:

- 7.96 To assess the approach to ensure measurable net gains for biodiversity and management of these habitats, BDC have reviewed the Biodiversity Net Gain Report [EN010118/APP/6.5], Biodiversity Design Strategy [EN010118/APP/7.3] and Outline Landscape and Ecology Management Plan [EN010118/APP/7.11].
- 7.97 In terms of the Biodiversity Net Gain Report [EN010118/APP/6.5] BDC generally support the conclusions of the baseline habitat assessment and aims/objectives of the scheme layout. In addition, BDC agree that this is in line with the Biodiversity Design Strategy and Outline Landscape and Ecology Management Plan. It is highlighted that the Biodiversity Net Gain Report uses the Defra Biodiversity Metric 3.0, which is not the most recent iteration of the Defra Biodiversity Metric, as '3.1' is now available. However, this update was released in May 2022 and it is not expected that the Biodiversity Net Gain Report should now be updated, in line with guidance set out by Natural England.
- 7.98 However, BDC note that a trading issue is present within the Biodiversity Net Gain Report calculations, which goes against 'Rule 3' of the Biodiversity Metrics (User Guide) "Losses of habitat should be compensated for on a 'like for like' or 'like for better' basis". The reason for this trading issue is because the metrics indicate that 6.35 units of Lowland Mixed Deciduous Woodland (high distinctiveness) would be lost to development and would be replaced by 80.20 units of other woodland; broadleaved / mixed (medium distinctiveness). In addition, BDC note that the Chapter 8: Ecology of the ES [EN010118/APP/6.1] outlines that no woodland would be required to be removed across the Order limit. As a result, it is recommended that further clarification should be provided on whether woodland removal would be required for this application and the BNG calculations updated as required. In addition, it is recommended that the finalised approach should outline opportunities to ensure that trading rules are satisfied or demonstrate that measurable net gains for biodiversity can still functionally be achieved.
- 7.99 In terms of the Biodiversity Design Strategy [EN010118/APP/7.3], BDC are satisfied Biodiversity has played a key role in the development of the scheme. Therefore, whilst not taking in account the trading issue outlined above, BDC

are satisfied that the design of the scheme will clearly maximise the enhancement of the biodiversity value of the Solar Farm Site, including within field margins, undeveloped areas set aside for biodiversity enhancement, and in the land between and below PV Arrays. BDC are particularly pleased to see the approach to conservation grazing, with the flexible approach to stocking densities, to ensure that biodiversity objectives would be achieved for habitats and key species throughout the lifetime of the development. BDC are also pleased to see that the objectives of the Biodiversity Design Strategy are consistent with the habitat creation requirements of the Defra Biodiversity Metric to ensure habitats with good condition values.

7.100 In terms of the Outline Landscape and Ecology Management Plan [EN010118/APP/7.11], BDC support the indicative planting specification and schedule, as well as the outlined aftercare measures for the proposed habitats. However, BDC do recommend that a 40-year work schedule (in a table format) would be beneficial to be included within this document. Furthermore, it would be beneficial to have the persons responsible for the implementation of the management measures to be outlined within an updated document, to ensure accountability if the objectives of the site are not being reached. In addition, the product details, location, heights and orientations of the proposed habitat boxes should be provided, along with designs and locations of the proposed habitat piles. This is necessary to ensure the appropriate implementation of these bespoke enhancement measures.

Other comments – Deer fencing:

7.101 BDC have reviewed figure 2-12 (Deer Fencing/CCTV) and have the following comments to ensure the successful establishment of the fencing, based on published guidance:

- The fencing will be installed at appropriate height and will avoid Muntjac entering the site. However, the specifications may need to be 2.6-2.8 m in height to fully rule out large deer (i.e. Fallow Deer) from jumping over the fence.
- The wire mesh will need to prevent animals from passing through the openings. Therefore, mesh size at the base of fences should be no more than 75 x 75mm due to the presence of muntjac across the wider landscape.
- Wires should have a diameter of at least 2.5 mm and should consist of a rust-free material.
- The mesh should be fixed such that deer cannot pass under the fence. This may involve burying the wire mesh 20-40cm underground, with contingencies to still allow Badger through if possible (i.e. badger gates').

- No lighting should be installed as part of the CCTV, unless it includes infrared lighting.

Recommend further actions

7.102 To ensure that the development complies with local planning policies, it is recommended that further clarification is provided on the following issues:

- The Environment Statement indicates that direct vegetation removal would be required for Boreham Road Gravel Pits Local Wildlife Site, as outlined within Figure 10 – 15 (Vegetation Removal Plan). However, Chapter 8: Ecology of the ES [EN010118/APP/6.1] outlines that no woodland would be required to be removed across the Order limit. Therefore, further clarification on the impacts upon the Local Wildlife Site should be provided, along with any potential impacts on protected species (Bats, Hazel Dormouse and Great Crested Newt).
- Similar to the above issue, the Biodiversity Net Gain Report [EN010118/APP/6.5] indicates that 6.35 units of Lowland mixed Deciduous Woodland (high distinctiveness) would be lost to development, when Chapter 8: Ecology of the ES [EN010118/APP/6.1] outlines that no woodland would be required to be removed across the Order limit. As a result, further clarification should be provided on whether trading issues can be met and whether woodland is required to be removed.
- Whether surveys or reasonable avoidance measures should be ruled out for Hazel Dormouse when the application is proposing to remove approximately 450.6m of small hedgerow sections across the Order limit, as well as possibly a section of Lowland Mixed Deciduous Woodland. Further clarification on the likely impacts of this European Protected Species should be outlined within the DCO submission.
- Whether reasonable avoidance measures should be implemented for Great Crested Newt as well as reptiles, given that evidence of the European Protected Species is present within the Order limit. Alternatively, the developer could register the site under Natural England's District Level Licensing (DDL) for Great Crested Newt.
- It is recommended that the Outline Landscape and Ecology Management Plan [EN010118/APP/7.11] should include a 40-year work schedule via table format to deliver the on-going aims and objectives of the Biodiversity Net Gain Assessment, as well as outlining the persons responsible for the habitat implementation and aftercare.

7.103 Finally, it is suggested that both of the below planning conditions would be appropriate:

A) PRIOR TO COMMENCEMENT: BIODIVERSITY MONITORING STRATEGY

No development shall take place, including demolition, ground works and vegetation clearance, until a biodiversity monitoring strategy has been submitted to, and approved in writing by, the local planning authority. The purpose of the strategy shall be to monitor the habitat creation and the presence of Protected and priority species. The content of the Strategy shall include the following.

- a) Aims and objectives of monitoring to match the stated purpose.
- b) Identification of adequate baseline conditions prior to the start of development.
- c) Appropriate success criteria, thresholds, triggers and targets against which the effectiveness of the various conservation measures being monitored can be judged.
- d) Methods for data gathering and analysis.
- e) Location of monitoring.
- f) Timing and duration of monitoring.
- g) Responsible persons and lines of communication.
- h) Review, and where appropriate, publication of results and outcomes.

A report describing the results of monitoring shall be submitted to the local planning authority at intervals identified in the strategy. The report shall also set out (where the results from monitoring show that conservation aims and objectives are not being met) how contingencies and/or remedial action will be identified, agreed with the local authorities, and then implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme. The monitoring strategy will be implemented in accordance with the approved details.

Reason: To ensure the development complies with NPS, Draft NPS, NPPF and local planning policies, the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife & Countryside Act 1981 (as amended) and the NERC Act 2006 (Priority habitats & species).

B) PRIOR TO COMMENCEMENT: WILDLIFE SENSITIVE LIGHTING DESIGN SCHEME

A lighting design scheme for biodiversity, to cover all phases of development, shall be submitted to and approved in writing by the local planning authorities. The scheme shall identify those features on site that are particularly sensitive for bats and that are likely to cause disturbance along important routes used for foraging; and show how and where external lighting will be installed (through the provision of appropriate lighting contour plans, Isolux drawings and technical specifications) so that it can be clearly demonstrated that areas to be lit will not disturb or prevent bats using their territory.

All external lighting shall be installed in accordance with the specifications and locations set out in the scheme and maintained thereafter in accordance with the scheme.

Reason: To ensure the development complies with NPS, Draft NPS, NPPF and local planning policies, the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife & Countryside Act 1981 (as amended) and the NERC Act 2006 (Priority habitats & species).

Trees and Hedgerows

- 7.104 With specific regard to trees and hedgerows, the Council's Tree Officer has reviewed the relevant documentation in detail, in particular the 'Outline Landscape and Ecology Management Plan' (AECOM Limited), 'Environmental Statement – BNG Report (AECOM Limited), the 'Planning Statement', Appendix 10F – Visual Assessment, the 'Permissive Paths Plan' and Figures 13-2; 13-4, 10-13 'Visualisations', 10-10-3, 10-12 'Outline Masterplan' and Figure 10-11; Landscape Services.
- 7.105 The Council acknowledge that great effort appears to have been made to screen and enhance natural features throughout the proposal, both during use and after decommissioning of the Solar Farm. Enhanced planting to add to the Biodiversity Net Gain of the larger site, with connectivity between woodland blocks, will greatly enhance the visual landscape of the proposal. The efforts to plant along existing PROWs to screen the PV arrays is noted and should by year 5 begin to afford some softening to the proposed Solar Farm. 'Visualisation' and 'View Point Locations' help to ease the concern regarding Landscape and Scenic impact generated by the proposed Solar Farm, with many existing landscape features providing suitable screening from the beginning.
- 7.106 Submitted documents cover satisfactorily most elements of the proposal, however whilst there is inclusion of every Ecological Species within reports, a satisfactory Arboriculture Report, both regarding Impact and Methodology, is absent. As the proposed Solar Farm is in such close proximity to Woodlands of value and of Ancient categorisation, Arboricultural reporting should be included within the submitted documentation and not submitted pursuant to the DCO. Highlighting this matter further, identifying the proposed 469.1m² of Woodland loss is not achievable within the submitted 'Vegetation Removal Plan' due to lack of clarity and the large scope of area covered by the site within one sheet. This can easily be rectified with a dedicated Arboricultural Impact Statement, breaking the site down into its individual PDAs. RPAs, Tree Protective Fencing and Removals can all be documented this way, rather than after the DCO when impact would be harder to remedy. Tree Protective Fencing and its location should be seen as a priority when considering the close proximity of Ancient Woodlands and other trees on the proposed site, critically during construction.
- 7.107 Within the OLEMP, section 2.3.5 – d, states:

'Design principles that have been applied to avoid and/or reduce potential ecology and nature conservation effects include:

Ensuring that existing priority habitats (including woodland, veteran trees, marshy grassland, hedgerows, running water and ponds) are avoided, where reasonably practicable, and compensated for where not, through habitat creation and replacement.'

7.108 This comment is too vague, and one person's view of what is 'reasonably practicable' will differ to another's. Woodland and Veteran trees should be avoided as a first measure.

7.109 Following the Mitigation Hierarchy (*Guidelines For Ecological Impact Assessment In The UK And Ireland*, CIEEM, 1.19, September 2018)

Avoidance - Seek options that avoid harm to ecological features.

Mitigation - Negative effects should be avoided or minimised through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual negative ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancement - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

7.110 Avoidance should always be the first course of action, not 'where reasonably practicably'. On a site such as a Solar Farm, avoidance of habitat loss should be easily achievable.

7.111 The OLEMP sets out good guidelines for planting and for future management of vegetation, both existing and proposed planting. The guidance needs to be firmed up within the official LEMP in order to be assured of the enhancements proposed and to create the screening required to lower the visual impact to surrounding sensitive landscape from the proposed Solar Farm.

8. Flood Risk

Development Plan Policies

8.1 Essex County Council are the Lead Local Flood Authority for the area and provide the relevant statutory consultee advice to BDC in the assessment of all relevant planning applications within the District. The County Council are also a host authority for the Longfield DCO and BDC have worked alongside them from the outset of the process. ECC will provide their assessment on flood risk in their own LIR and BDC will therefore defer to ECC on this matter.

- 8.2 For completeness however, relevant Development Plan Policies are identified below.
- 8.3 Policy SP7 of the Adopted Local Plan requires all development to include flood mitigation measures.
- 8.4 Policy LPP74 of the Adopted Local Plan addresses flood risk and surface water drainage in detail. It requires development wherever possible to avoid areas at risk of flooding and to be located within Flood Zone 1. Where it must lie within higher risk areas sequential and exception tests are required and development should be designed appropriately. Specific requirements for a minimum 8m wide undeveloped buffer strip alongside Main Rivers (Environment Agency consultation being triggered if this is breached) and 3m buffer strip on at least one side of an Ordinary Watercourse are also included.
- 8.5 Policy LPP76 of the Adopted Local Plan requires development to incorporate SUDs systems where appropriate and to the County Council's requirements.
- 8.6 Hatfield Peverel Neighbourhood Plan Policy HPE 6 states that '*any proposed development should include measures to mitigate against future risk to properties, residents and wildlife from flooding and be located away from areas prone to flooding*' and that the use of SUDs is expected on all sites with infiltration as the preferred discharge option.

Key Local Issues

- 8.7 The River Ter is located at the northern end of the application site within the site boundary and is a 'main river'. Flood Zones 2 and 3 are located adjacent to it.

Adequacy of the Application/DCO

- 8.8 Chapter 9 of the ES sets out compliance with the above buffer zones at paragraph 9.33. The exception is where the cable route would need to cross Boreham Brook. It is also confirmed at a para 9.7.26 that no Solar PV Panels or other infrastructure would be located within fluvial flood zones 2 or 3. A comprehensive SUDs Strategy and Drainage Strategy have also been submitted.
- 8.9 With regard to construction water runoff, the Applicant sets out in general terms at paragraph 9.7.4 how the CEMP would address this. In general terms the scheme complies with Local Policy however for a detailed technical assessment of flood risk BDC defer to the Lead Local Flood Authority, ECC.

9. Historic Environment

Development Plan Policies

- 9.1 Policy SP7 of the Adopted Local Plan requires all new development to protect and enhance assets of historical value.
- 9.2 Policy LPP47 of the Adopted Local Plan states that the Council will promote and secure a high standard of design and layout and the protection and enhancement of the historic environment in order to respect and respond to local context, especially in the District's historic areas where development may affect the setting of listed buildings and other heritage assets.
- 9.3 Policy LPP57 of the Adopted Local Plan seeks to protect heritage assets and their settings stating that the Council *'will seek to preserve and enhance the immediate settings of heritage assets by appropriate control over the development, design and use of adjoining land'*.
- 9.4 Policy LPP59 of the Adopted Local Plan addresses archaeological matters and seeks to ensure that sites of archaeological importance are appropriately investigated.

Key local Issues

- 9.5 There are a number of heritage assets within the area which the applicant has identified in detail in their Heritage Assessment.
- 9.6 In summary, the Assessment considers heritage assets within a 3km study area and then within a narrower 1km study area and finally within the DCO limits itself (i.e. the application site boundary). The 1km and DCO limits study areas identify the following:
- *There are no scheduled monuments within these areas*
 - *There are 73 listed buildings within the 1km area. Three of these are Grade 1 (Ringers Farmhouse; the Church of St Mary the Virgin, Great Leighs and the Church of St Andrew, Boreham) and one is Grade 2* (The Old Rectory). There are none within the DCO limits.*
 - *There is one Grade 2 Registered Park and Garden (Terling Place) which falls partly within the 1km study area (but not within the DCO limits)*
 - *There are 3 Conservation Areas within the 1km study area (Terling; Boreham Roman Road/Plantation Road and Boreham Church), none fall within the DCO limits.*
- 9.7 In terms of landscape, a Historic Landscape assessment of the Order limits concludes that the order limits comprise a remnant medieval agricultural landscape which is considered sensitive to change.

- 9.8 A number of Protected Lanes are also identified. The Applicant's Assessment states that within Braintree District Noakes Farm Road lies within the DCO limit and Terling Hall Road lies to the north and east to it. Within Chelmsford District Noakes Farm Lane and Birds Farm Lane lie within the DCO limit and Boreham Road lies outside.
- 9.9 The Council also wish to identify Rolls Farm Lane which also lies immediately to the east of the DCO site (Terling Hall Road leads into Rolls Farm Lane and both run along the site's eastern boundary). In addition, Waltham Road starts immediately adjacent to the DCO's eastern site boundary, leading away in an easterly direction.

Adequacy of the Application/DCO

- 9.10 The application has been assessed by the Council's Historic Buildings consultant. No heritage assets will be physically affected by the proposals, nor are there any included within the site boundary, however there will be an impact upon the setting of numerous heritage assets which are located in close proximity to the site.
- 9.11 Grade I listed Ringers Farmhouse is the sole listed building which is identified by the applicant as 'experiencing significant adverse effects on its heritage value' (section 3.2.1, Appendix E). Mitigation has been taken to reduce the impact of the development on the setting of Ringer's Farmhouse, through an increase in the spacing between the development and the listed building, comparative to the previous submission. Furthermore, as the applicant's statement concludes, this harm is temporary and reversible, limited to the lifespan of the solar park. It is concluded that the DCO would result in less than substantial harm to the significance of Ringer's Farmhouse, due to the change in its setting, which the Council agree with.
- 9.12 Section 7.811- 7.8.57 of the ES provides commentary and explanation of the assessment conducted regarding the impact of the development on the setting of numerous designated heritage assets, many of which are Grade II listed buildings. Terling Conservation Area is also considered in this section. The impacts are determined to be negligible to low in all cases (except Ringer's Farm, as described above), which is deemed not significant in EIA terms. Whilst the Council agree with this statement, BDC would like to highlight that the proposals will result in harm to the significance of a high number of listed buildings and structures, through impact to their setting. These are (*unless stated, all buildings are Grade II):
- Terling Conservation Area (magnitude of impact: very low, resulting in a negligible effect)
 - Terling Place Registered Park and Garden (magnitude of impact: low, resulting in a minor adverse effect)

- Parish Church of All Saints Grade II* (magnitude of impact: very low, resulting in a minor adverse effect)
- Barn approximately 5m SE of Ringer's Farmhouse (magnitude of impact: low, resulting in a minor adverse effect)
- Leylands Farmhouse (magnitude of impact: low, resulting in a minor adverse effect)
- Barn and Stable Range Approximately 15 Metres North of Leylands Farmhouse (magnitude of impact: low, resulting in a minor adverse effect)
- Scarlett's Farmhouse (magnitude of impact: low, resulting in a minor adverse effect)
- Little Russells (magnitude of impact: low, resulting in a minor adverse effect)
- Sparrows Farmhouse and two associated listed buildings (magnitude of impact: low, resulting in a minor adverse effect)
- Rolls Farmhouse and associated listed barn (magnitude of impact: low, resulting in a minor adverse effect)
- Brent Hall (magnitude of impact: low, resulting in a minor adverse effect)
- Birds Farmhouse (magnitude of impact: very low, resulting in a negligible effect)
- Barn at Noakes Farm (magnitude of impact: low, resulting in a minor adverse effect)
- Lawns Farmhouse (magnitude of impact: low, resulting in a minor adverse effect)
- Little Holts (magnitude of impact: low, resulting in a minor adverse effect)
- Toppinghoe Hall and associated garden walls, two listings (magnitude of impact: very low, resulting in a negligible adverse effect)
- Wallaces Farmhouse (magnitude of impact: very low, resulting in a negligible effect)
- Church of St Mary the Virgin, Great Leighs Grade I listed (magnitude of impact: low, resulting in a minor adverse effect)

- Wakerings Farmhouse (magnitude of impact: very low, resulting in a negligible effect)
- Edenvale (magnitude of impact: very low, resulting in a negligible effect)
- Poplars Cottage (magnitude of impact: very low, resulting in a negligible effect)
- The Parish Church of St Mary the Virgin, Fairstead, Grade I (magnitude of impact: low, resulting in a minor adverse effect)
- Shuttleworth (magnitude of impact: very low, resulting in a negligible effect)
- Hobbits (magnitude of impact: very low, resulting in a negligible effect)
- Shoulderstick Haul (magnitude of impact: very low, resulting in a negligible effect)
- Powers Farmhouse (magnitude of impact: very low, resulting in a negligible effect)

9.13 Further impact is identified to numerous non-designated heritage assets, including Berwick Hall and Stocks Farm (see paragraphs 7.8.58 - 7.858). Not all of these assets are within Braintree District, yet they are relevant and require consideration.

9.14 Whilst the Council do not disagree with the assessments provided, nor the conclusions given, which follow the guidelines set out by Historic England in GPA Note 3: *The Setting of Heritage Assets*, BDC wish to flag that numerous heritage assets will be affected by the GDO. Whilst this impact may be low in EIA terms, in many instances there will be less than substantial harm to the setting of a designated heritage asset, which must be considered against section 202 of the NPPF. Similarly, as per section 199 of the NPPF, 'great weight should be given to the asset's conservation', whilst 'Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification, section 200.

9.15 Mitigation, such as planting and screening as proposed, will lessen the effect of the development to some extent, yet this too will have an impact upon the fieldscape, as evidenced in the supporting visualisations (eg. viewpoint 13, 8 and 56). The impact this will have upon the historic landscape, including protected lanes, is covered within the landscape and historic environment sections of this report and will also require consideration in the planning balance along with the heritage harm identified above.

- 9.16 Finally, with specific regard to archaeological impact BDC defer to ECC as this is a County matter. ECC have discussed archaeological matters in detail with the Applicant and will address this topic area in their own LIR.

10. Landscape and Visual

Development Plan Policies

- 10.1 Policy LPP67 of the Adopted Local Plan addresses landscape character and features stating that BDC will take into account the different roles and character of the various landscape areas within the District and recognise the intrinsic character and beauty of the countryside in order to ensure that development is suitable for its context. The Council's Landscape Character Assessments are identified as being central to this assessment. Development which would not successfully integrated into the local landscape will not be supported. Additional landscape planting is identified as being required. The restoration and enhancement of the natural environment is encouraged, in particular through creation of new green infrastructure and through creating and enhancing the biodiversity of wildfire corridors.
- 10.2 Policy LPP69 of the Adopted Local Plan seeks to conserve the *'traditional landscape and nature conservation character of roads designated on the Proposals Map as Protected Lanes, including their verges, banks, ditches and natural features such as hedgerows, hedgerow trees and other structural elements contributing to the historic features of the lanes'*.
- 10.3 Policy LPP65 of the Adopted Local Plan seeks to protect trees in the District, stating that *'trees which make a significant positive contribution to the character and appearance of their surroundings will be retained unless there is a good arboricultural reason for their removal for example they are considered to be dangerous or in poor condition'*.
- 10.4 Hatfield Peverel Neighbourhood Plan Policy HPE1 requires development to *'have regard to and respect the character of the landscape and its sensitivity to change'* and to *'enhance the locally distinctive character of the landscape in accordance with the Hatfield Peverel Landscape Character Assessment (2015)'*.
- 10.5 Policy HPE5 seeks to protect the landscape setting of the village, requiring new development not to detract from the key landscape features of specifically identified views. Map 8 on page 56 of the Neighbourhood Plan identifies these views with View 7 being one which is broadly orientated toward the Longfield site, albeit from some distance.

Key local Issues

- 10.6 The Local Authorities have jointly commissioned an external expert Landscape Consultant to assess the likely landscape impact of the Longfield proposal on behalf of the Council. This assessment is attached at Appendix 1 and forms the bulk of the Council's view upon landscape impact. Some key points are summarised here however Appendix 1 should be read in conjunction with this LIR section and also includes a relevant map and table detailing a summary of matters raised with the applicant and responses/positions reached during the consultation period.
- 10.7 For clarity, the Council have assessed the landscape impact of the entire Longfield scheme rather than attempting to split the assessment along the shared BDC/CCC boundary. Doing so would have represented an arbitrary split of the scheme and resulted in an incomplete landscape assessment, the scheme needing to be read as a single entity within the wider landscape as a whole.

District Landscape Character Areas

- 10.8 The majority of the proposed development falls within the Terling Farmland Plateau. In the District LCA this character area is identified as having the following key characteristics:
- Rolling arable farmland
 - Irregular pattern of medium to large scale fields
 - Scattered settlement pattern with frequent small hamlets, typically with greens and ponds
 - Network of narrow winding lanes
 - Mostly tranquil away from the A12 and A131
- 10.9 No sensitivity rating is given in the District Landscape Character Areas (DLCA), but the farmland plateau falls within the Essex County Landscape Character area B1 Central Essex Farmland. This character area is given a sensitivity rating of medium in terms of utilities developments, but the Terling/Fairstead area is particularly noted in the LCA as having a high sensitivity to most types of development or change.
- 10.10 Both the County and District LCAs were carried out some years ago and the assessment of likely developments does not mention large scale renewable energy projects as these were probably not considered likely at the time.
- 10.11 Designated ancient woodlands Ringers Wood, Porters Wood and Scarlett's Farm are within the Order limits. Ancient woods at Sandy's Wood and Lost Wood are adjacent to the Order limits. Replanted ancient woodlands at Toppinghoehall Woods are adjacent to the Order limits.
- 10.12 Listed farmsteads are scattered across the area at Leylands Farm, Whitehouse farm, Scarletts Farm, Sparrows Farm, Rolls Farm, Ringer's farm, Birds farm and Noak's Farm.

- 10.13 The combination of narrow lanes, listed farmsteads, ancient woodlands and agricultural land use gives the area a sense of time depth and relative tranquillity once away from the Waltham/Boreham Roads.
- 10.14 There is also one protected lane which crosses the application site (Noakes Farm Road), two which run adjacent to it (Terling Hall Road and Rolls Farm lane) and one which starts adjacent to the site (Waltham Road).
- 10.15 The proposal is also located within the Boreham Farmland Plateau. The plateau is described as having the following key characteristics:
- Irregular field pattern of mainly medium sized arable and pastoral fields marked by hedgerows, banks and ditches
 - Small woods and copses provide structure and edges in the landscape
 - Scattered settlement pattern with frequent small hamlets
 - A concentration of isolated farmstead
 - Network of narrow winding lanes
- 10.16 The dominance of the A12 road corridor is noted in the study and overall, the area is given a low to moderate sensitivity to change.

Local Landscape Character Areas (LLCAs)

- 10.17 The Longfield ES further divides the landscape character areas to provide a more fine-grained assessment of the character impacts. Nine separate character areas have been defined within the order limits and surrounding countryside (see Figure 10-7 in ES Figures). These character areas were agreed with the LPAs.
- 10.18 The physical extent of the solar farm falls into four of the LLCAs (see below).

03 Ter Valley North - high sensitivity

02 Western farmland Plateau – medium sensitivity

07 Toppinghoehall Woods – medium sensitivity

08 Boreham North – medium sensitivity

Cumulative Impact

- 10.19 The cumulative effect of the proposal with other development proposals is also a key local consideration.
- 10.20 The Longfield ES identifies 40 proposals in the vicinity of the site which have passed their threshold test for shortlisting for inclusion in the cumulative assessment. The proposals are located with marker numbers on the map but have not been spatially plotted on the mapping in the ES.

Adequacy of the Application/DCO

Methodology - Landscape and Visual Impact Assessment

- 10.21 The Council consider that the Landscape Character and Visual Impact Assessment has been carried out using the methodology set down in the Guidelines for Landscape and Visual Impact Assessment (3rd Edition) which is the current commonly applied professional guidance.
- 10.22 Definition and extent of local landscape character areas has been agreed with the LPAs and used in the assessment to give a more fine-grained approach to the LVIA.
- 10.23 There is however one point of the LVIA that the Council do not agree with which is the Applicant's assessment with reference to the Ter Valley.

Residential Amenity Assessment

- 10.24 The Council agree that the proposals do not meet the threshold to require a residential amenity assessment.

Cumulative Assessment

- 10.25 The proposals have been assessed using current methodology – although this is less defined than standard LVIA methodology. The ES states that worst case scenario effects ('the Rochdale envelope' approach) have been applied in the assessment.
- 10.26 Other developments in the vicinity of the Longfield site have been identified in the Environmental Statement and an assessment has been carried out of their impact in relation to the District Landscape Character areas and the Local Landscape Character areas defined as part of the ES.

Particular Areas of Concern

Ter Valley North

- 10.27 The Councils assessment is that there will be a moderate adverse impact for a short stretch of the Ter Valley to the west of Sandy Wood. Our view is that field PDA1 should be removed from the scheme to retain the valley character alongside the Essex Way footpath – see notes in sections on landscape and visual impact.

Protected Lanes

- 10.28 The Landscape masterplan and discussions had focussed on enhancement to hedges alongside the protected lanes and this is illustrated on the Landscape Masterplan. The Vegetation Removal Plan in the ES appears to show removal of vegetation along part of Noakes Farm Lane.

Likely Harm to Landscape Character

Vegetation removal

10.29 ES Figure 10-15 illustrates the potential vegetation removal. Across the area defined by the order limits there would be 450.6m² of hedgerow loss and 469.1m² of woodland loss (see Chapter 6 in ES page 10-52).

10.30 The majority of the removal is shown as breaks through existing hedgerow, otherwise the existing field pattern will remain and be enhanced with additional planting.

10.31 Mitigation planting is proposed in compensation across the site with advance planting in selected areas. The ES states that the scheme will create new green infrastructure:

- 8.6km of native hedgerow with trees
- 20.6km of native hedgerow enhancement (gapping up and infill planting)
- 200 new trees
- 23.2ha of land for natural regeneration
- More than 3ha for new native woodland in 25m wide copses
- 0.6ha of native linear tree belts
- 272ha of species rich grassland

In time, these mitigation measures will provide enhanced green infrastructure across the site.

Protected Lanes

10.32 Along part of Noakes Farm Lane vegetation removal is to be proposed to each side of the carriageway. This part of the Lane is designated as a protected lane in BDC's Local Plan under Policy LPP69 and, as such, the policy is clear that any proposals that would have a materially adverse impact on the physical appearance of these protected lanes will not be permitted.

10.33 The Council have discussed this in detail with the Longfield Team. The vegetation removal is shown to allow for visibility splays during construction of the solar park where vehicles will be crossing Noakes Farm Lane.

10.34 The Council understand that the intention is to manage the roadside vegetation on the north-south length of the lane by mowing the verges during the construction stage to improve visibility. This is more landscape management than vegetation removal.

- 10.35 Where the Lane turns to run east-west the current proposal is to remove a length of hedgerow for approximately 93m. The hedgerow is not continuous at this point so approximately 42m of hedge planting would be removed. The Council understand that the trees would be retained and a replacement hedgerow planted following construction, nevertheless, this would adversely impact the physical appearance of the protected lane.
- 10.36 The hedgerow has not yet been surveyed in detail, although the Council understand that a detailed survey of the hedge and trees is to be undertaken. There may be alternatives to hedgerow removal which should be considered. The visibility splay lengths are generated by traffic speeds so a lower speed limit during construction could reduce the requirement. Traffic management of vehicles crossing the Lane could also avoid the need to remove the hedge. Management of the hedgerow by facing up or cutting back to improve visibility could also be explored.
- 10.37 As the plans stand at present the proposals are contrary to the protected lanes policy.

Loss of open landscape

- 10.38 The solar farm would mainly cover the agricultural fields which make up the rolling landscape of the Terling and Boreham Farmland Plateau. This would result in a loss of the open character which can be appreciated from the well-used footpath network in the area (see visual impact below).

Level of harm in relation to the district landscape character areas (DCLAs)

- 10.39 Two district LCAs are directly impacted by the proposals: the Terling Farmland Plateau and the Boreham Farmland Plateau. Both will be impacted by the proposals.

Terling Farmland Plateau B17

- 10.40 The majority of the proposed development falls within the Terling Farmland Plateau.

The Council's position on harm to the District LCA: Terling Farmland Plateau

- 10.41 Overall, a medium sensitivity to change is a reasonable general assessment of the whole character area. It includes busier and more built-up areas such as Great Leighs, the Waltham Road and part of Hatfield Peverel. The solar farm would cover a relatively small part of the character area and the noticeable effects of the installation of the solar arrays would decline once mitigation planting is established.
- 10.42 Within the Terling Farmland Plateau area it is recognised in the County LCA and from the desktop and field work which has been carried out that the area

around Terling has a greater sensitivity. The relative tranquillity and historic features (farmsteads, ancient woods) and presence of the River Ter contribute to the higher sensitivity of this part of the character area.

- 10.43 The physical effects of the Longfield development would be the conversion of arable farmland to solar farm with fields of solar arrays, fencing, CCTV and battery storage all located within the character area. The effects will be long term (for more than 10 years) but would also be reversible at the end of the consent period in 40 years.
- 10.44 The Council's position on the character effects for most of the area *without mitigation* is that a significant adverse effect would result from the proposals. The mitigation proposals would reduce this to a moderate adverse level of effect during operation of the site (definition: partial reversible alteration to the landscape receptor over a wide area). See also specific notes on the River Ter below.

Boreham Farmland Plateau B21

- 10.45 The proposal also falls within the Boreham Farmland Plateau.

Impact of the Longfield proposal on the Boreham Farmland Plateau

- 10.46 The south-eastern extents of the Order limits cross into the Boreham Farmland Plateau where the connection is made from the solar array fields through to the Bulls Lodge sub-station extension. No solar arrays are proposed for this character area and cable routes will be below ground.
- 10.47 The main impact will be the local extension to the substation and the access works needed to undertake the extension works.

The Council's position on harm to the Boreham Landscape Character Area

- 10.48 The Council's position on the character effects for the Boreham Farmland Plateau is that there will be a minor adverse effect during construction and decreasing to negligible once construction works are concluded.

Local Landscape Character Areas (LLCAs)

- 10.49 The Longfield ES further divides the landscape character areas to provide a more fine-grained assessment of the character impacts. Nine separate character areas have been defined within the order limits and surrounding countryside (see Figure 10-7 in ES Figures). These character area were agreed with the LPAs.
- 10.50 The physical extent of the solar farm falls into four of the LLCAs (see below). These have been assessed for landscape sensitivity and effects in the ES (Appendix 10E in volume 2) and the assessment findings, stated in the ES, during operation of the scheme are summarised below:

Ter Valley North - high sensitivity – low magnitude of effect (due to only very small incursion of physical area of solar arrays 1%)- minor adverse significance in construction reducing to negligible in year 15 (due to mitigation planting establishing)

Western farmland Plateau – medium sensitivity - medium magnitude of effect (15% of character area) - moderate adverse impact in year 1 reducing to minor adverse impact in year 15 (due to mitigation planting)

Toppinghoehall Woods – medium sensitivity- moderate adverse effects in year 1 reducing to minor adverse by year 15 (due to mitigation planting)

Boreham North – medium sensitivity - low adverse effects in year 1 with negligible adverse effects in year 15

- 10.51 The Council agree that following the methodology proposed and agreed for the assessment that the above is a reasonable conclusion if the character areas are assessed in *isolation* from each other. When considering the Ter Valley and its setting, the Council however reach a different conclusion to that stated in the ES.
- 10.52 The Council's assessment is that the interplay between the Ter Valley North Local Landscape Character Area and adjacent Western Farmland Plateau to the south of the river that should not be ignored. The lower slopes of the Western Farmland Plateau provide part of the setting for this northerly stretch of the River Ter.
- 10.53 The Ter valley is recognised as a highly sensitive landscape in the LCA studies at all scales. The solar arrays would be visible from the Essex Way footpath which runs along the valley floor at this point for some years before mitigation planting is fully established and the mitigation planting cannot be continuous along the valley side because of the presence of pylons with overhead cables which span across the valley and present a detracting factor in what is a sensitive view.
- 10.54 The ES concludes that there are insignificant adverse effects on the upper Ter Valley North and strictly speaking this is true if assessment is confined to the boundaries of the character area. The Council's conclusion (because of the loss of view through to farmland and the visual intrusion of the solar arrays) is that in year 1 there would be a moderate adverse effect on the environs of the River Ter at this point which would reduce to a minor adverse effect once the planting is established by Year 15.
- 10.55 This moderate adverse effect could be eliminated if field PDF1 was removed from the solar arrays area.

Cumulative Harm

Boreham Farmland Plateau – cumulative effects

10.56 In landscape character terms, the potential proposals with the widest impact on this character area are the North-East Chelmsford urban extension and the Chelmsford Garden Village which are both located, along with the proposed eastern by-pass, between the existing settlement edge and the proposed Longfield Solar Farm. The site allocation for the housing to the east of Chelmsford extends to approximately 1km to the east of the Longfield site with a new country park allocation extending to around 200m of the Longfield site at its furthest extent. The existing gravel workings to the west of the Waltham Road provide a 'break' between the Longfield Site and the sites allocated for country park and housing. The effect of the Longfield proposals on the farmland plateau is minor reducing to negligible so the development of Longfield would result in negligible cumulative effect within the LCA. The effect of the Chelmsford north-eastern urban extension and associated infrastructure would have a much greater landscape character effect than the Longfield proposals in this character area. The Council agree with this assessment for the Boreham Farmland Plateau.

The Terling Farmland Plateau

10.57 The ES assesses the cumulative effects of the Chelmsford north-eastern by-pass, the Sheepcoates Farm Quarry and the Great Leighs (CCC) local plan allocation for housing as having a bearing on the magnitude of effects when combined with Longfield. The assessment is that there would be a moderate adverse effect if all the developments went ahead. The Council agree with this assessment.

Combining the character effects for Boreham and Terling Farmland Plateaus

10.58 The ES falls short of describing the combined cumulative effect across the two District LCAs and spatially mapping of the Chelmsford North-Eastern Urban Extension and other developments in combination with the Longfield proposal.

10.59 When the major developments of the North-Eastern Urban extension to Chelmsford, the Chelmsford Garden Village and the Chelmsford Northern by-pass and Longfield are mapped it is clear that if all developments went ahead there will be an erosion of the countryside buffer between Chelmsford and Terling. Assessment of the impact of the proposed major developments will only be undertaken at the time that they come forward as part of the planning process, however, it is likely that any assessment would find adverse impacts from the development of open countryside to a major housing scheme or new infrastructure project. When combined with Longfield's effect on the Terling Farmland plateau the cumulative effect is likely to be a moderate adverse effect on the two character areas.

10.60 The summary of significant residual visual effects is given in the ES Volume 1 Chapter 10 (see pages 66 to 72). The assessment of the views has been

carried out using the standard methodology and Type 1,2 and 3 visuals have been produced for key views identified and agreed with the LPAs.

- 10.61 In year 1 of operation 11 of the viewpoints are assessed as being subject to moderate adverse effects and 3 viewpoints are assessed as being subject to major adverse effects. Both levels of effect are considered significant in ES terms.
- 10.62 By year 15, the ES assessment reduces the number of views with major adverse impacts to viewpoint 9 and viewpoint 16 and moderate adverse to only viewpoint 5. Having reviewed the assessment and Type 3 visuals the Council have one difference in our assessment of the impact of the proposals on the views:

Viewpoint 45 – from the Essex Way footpath north of the River Ter looking south:

- 10.63 ES assessment is that the mitigation planting would reduce the impact on this view from moderate adverse in year 1 to minor adverse in year 15. Although the proposed planting will provide screening it is our view that enough of the solar farm is still visible in year 15 for the impact on the view to continue to be assessed as moderate adverse. Potentially a change to the proposed mitigation planting to include more trees as well as hedgerow would result in a benefit and a change from moderate adverse impact.
- 10.64 Overall, the mitigation planting proposed is assessed to have a positive impact on the visual impact of the proposals and will successfully screen the solar arrays and other features for most of the viewpoints. There will, however, be a loss of longer views and the appreciation of the open character of the landscape from footpaths due to the mitigation planting.
- 10.65 In terms of Policy compliance, Local Plan (Section 2) Policy LPP67 identifies the Council's LCA's as being central in any landscape assessment and goes on to state that Development which would not successfully integrate into the local landscape will not be supported.
- 10.66 Neighbourhood Plan Policy HPE1 also requires development to respect the character of the landscape and its sensitivity to change. It is accepted that most major developments of any significant scale will not completely comply with these policy requirements and that it is a matter of weighing up the degree of identified landscape harm in the overall planning balance.
- 10.67 Policy LPP69 of the Adopted Local Plan seeks to conserve the District's Protected Lanes. Part of the proposal does not comply with this Policy as identified above.

11. Noise and Vibration

Development Plan Policies

- 11.1 Policy SP7 of the Adopted Local Plan requires all new development to protect the amenity of existing and future residents with regard to inter alia noise and vibration.
- 11.2 Policy LPP70 of the Adopted Local Plan addresses emissions and pollution. It states that new development should prevent unacceptable risk from all emissions and other forms of pollution including noise pollution. Development will not be permitted where cumulatively or individually (after mitigation) there are likely to be unacceptable impacts to the general amenity and tranquillity of the wider rural area.
- 11.3 Policy FI1 of the Hatfield Peverel Neighbourhood Plan is a transport orientated policy however it addresses noise more generally stating that *'proposals for all new developments should prevent unacceptable risks from emissions and all forms of pollution (including air, water and noise pollution) to ensure no deterioration of current standards. All applications for development where the existence of/or potential for the creation of pollution is suspected must be supported by relevant assessment'*.

Key local Issues

- 11.4 The application has been assessed by the Council's Environmental Health Officer.

Noise and Vibration

- 11.5 Chapter 11 of the Environmental Statement considers Noise and Vibration. The information considers the appropriate legislation and planning matters relating to noise including construction, operational and commissioning noise and vibration sources. It considers noise impacts that are likely to arise and includes identification of noise with any distinct tone, impulsive or low frequency characteristics, identifies the sensitive premises, a baseline noise assessment, noise prediction to determine changes in noise due to the project and consideration of the effect due to those changes and mitigation to be employed. The report considers the avoidance of significant adverse impacts and mitigation of and minimising of other adverse impacts in accordance with the National Planning Policy Framework.

Operational Noise

- 11.6 For operational noise the noise assessment states that a worst-case configuration of operational equipment is considered such as all equipment working at night. The sensitivity test is given in appendix 11D and considers max energy generation and heights and number of battery cubes. The assessment also uses background noise levels measured at the time of the pandemic when there were restrictions on travelling which should provide a worst-case baseline noise level.

- 11.7 For construction noise then Environmental Health considers that it is reasonable to adopt BS5228 Code of Practice for construction noise assessment. The assessment considers the construction noise within 300m of the order limits and vibrational effects at 100m from the closest activity.
- 11.8 Temporary overhead line construction is not considered within the assessment although Environmental Health would encourage noise assessment and noise management plans particularly where overnight/weekend working is carried if such works are necessary so as to avoid localised noise disturbance as far as is reasonably practicable.
- 11.9 All the residential properties are stated as being medium sensitivity in accordance with the matrix used by the assessor. This was queried at the time of the PEIR and Environmental Health accepts this for the assessment matrix used.
- 11.10 The noise sensitive receptors considered are listed in Fig 11.1 and Table 11.3 and cover the areas around the application site. Two new receptors have been added since the PEIR these being – Receptor 20 – 6 Braintree Road – Fuller Street and Receptor 23 – Porridge Pot cottages, Porridge Pot Lane, Terling.
- 11.11 For Operational noise, the various tables consider different times of the day – Table 11-13 (daytime periods), Table 11-14 (weekday evening), Table 11-15 (night-time/early morning period). The predicted noise rating level has been derived which has been compared to the background noise level for various times of the day (daytime, evening and night).
- 11.12 For the assessment then the worst-case background noise level for a Sunday has been used in the assessment, all plant in operation continuously during the daytime, assumed maximum operation even at night when typically, the inverters will not be working, all BESS cooling fans operating (although this will not be the case when cooler) and therefore represents the reasonable worst case.
- 11.13 In section 11.8.30 – no noticeable impulsive or intermittent characteristics – transfers within the BESS compound may have tonal characteristics – but noise levels will be dominated by the cooling fans and therefore the tonal characteristics will not be noticeable – however as a continuous hum may be noticeable then 3dB correction applied as the noise is ‘distinctive against the residual acoustic environment’- has been applied in determining the rating level. Appendix 11 D noise modelling.
- 11.14 It is noted that 11.8.30 states ‘however as a continuous hum may be noticeable then 3dB correction applied as the noise is ‘distinctive against the residual acoustic environment’. The noise is due to the cooling fans so attention to reduce this noise as far as reasonably practicable is encouraged.

- 11.15 The noise contour plot in Fig 11.2 indicates as stated in 11.8.39 that there are no predicted exceedances of the SOAEL during the daytime, evening and night-time periods.
- 11.16 It is noted in 11.9.2 that there is a proposed acoustic barrier along PROW (proposed) although the design may change and in 11.9.3 that receptors may be closer. It would therefore be considered appropriate to restrict noise levels at the operational phase in the event that there are any design/equipment changes at any time during the operation of the scheme.

Construction Noise

- 11.17 For construction noise the applicant considers changes in traffic noise levels and then considers the environment nearest affected properties to determine the difference and the likely impact and effect.
- 11.18 Generally Environmental Health within Braintree District Council unless there are exceptional reasons restricts hours of working for construction to 0800 to 1800 hours weekdays and 0800 to 1300 hours on Saturdays and no work on Sundays and public holidays. There is reference to evening and night-time working within the submission – Environmental Health would wish to see time restrictions to the construction hours to protect the occupiers of nearby residential properties. There should not be any night time or evening working.
- 11.19 11.7.4 – Construction Noise Monitoring Scheme – BDC Environmental Health would encourage that this is provided and that where modifications are received that there is scope to review. It is noted that worst effects of construction noise should continue for no longer than a month at each sensitive receptor and also that the assessments do not further consider the use of further best practicable means such as partial screening which will improve levels.
- 11.20 Despite the mitigation then there may still be exceedances where heavy ground works take place within 10m where SOAEL of 75dB exceeded, (see Table 11-12) and the Sat pm /Sun daytime SOAEL of 65dB(A) (LAEq) when within 30m – 11.8.8 - exceedances at R 1-3, 5, 9, 10, 15 to 18, 21, 23, 25.
- 11.21 There is reference to a good communication strategy which is key. 11.8.10 – states that works in close proximity are unlikely to last longer than a period of 10 or more days and construction and decommissioning activities are not significant. Environmental Health concludes that this still may give cause for complaint and there must be considerate and well managed working practices.
- 11.22 11.8.12 – concludes that for majority of the construction works then high level noise at distance so as to not to exceed the SOAEL and exceedances of the LOAEL could be minimised by mitigation secured through the OCEMP.

- 11.23 A detailed comprehensive Construction Environmental Management Plan would need to be provided and adhered to throughout the course of the construction and decommissioning phases.
- 11.24 The section further concludes that vibration would not be a problem during construction/short term location and decommissioning.

Adequacy of the Application/DCO

- 11.25 There is a comprehensive assessment of noise and vibration matters. Subject to controls being put in place to limit noise and dust levels and employment of best practicable means then no significant adverse effects are identified and the scheme would comply with Local Policy.
- 11.26 Environmental Health has considered the information relating to Air Quality and Noise and Vibration. The conclusion that there will be no long term significant adverse effects about these matters is accepted by Environmental Health and the scheme would comply with Local Policy.

12. Socio Economic

Development Plan Policies

- 12.1 In terms of the rural economy, Policy SP3 of the Adopted Local Plan covers the spatial strategy for North Essex and states that *'beyond the main settlements the authorities will support diversification of the rural economy and conservation and enhancement of the natural environment'*.
- 12.2 Policy LPP7 of the Adopted Local Plan supports rural enterprise involving small scale commercial development.
- 12.3 Whilst both of these policies recognise the need to support the rural economy, including farm diversification, neither are designed to cover a solar farm of the scale proposed.
- 12.4 With regard to the existing farmland, Policy LPP73 of the Adopted Local Plan (*'Renewable Energy Schemes'*) states that *'Proposals for renewable energy schemes will be encouraged where the benefit in terms of low carbon energy generating potential outweighs harm to or loss of'* inter alia *'best and most versatile agricultural land'*
- 12.5 Policy HPE 1 (*'Natural Environment and Biodiversity'*) of the Hatfield Peverel Neighbourhood Plan states that development should take into account the economic and other benefits of the best and most versatile agricultural land.

Key Local Issues

- 12.6 The application site incorporates farmland and woodland and measures 454ha in total. Of this, 439ha of agricultural land (all grades) would be temporarily required for the construction phase – i.e. could not be farmed at all during the construction period. Of this 439ha of agricultural land 156ha (i.e. 34% of the entire 454ha site) is classed as BMV.
- 12.7 Following completion of construction the Applicant states that 150ha of BMV could be returned to farming use – but this would be limited to sheep farming not arable farming (sheep being able to graze between the panels). A total of 15ha of agricultural land (of which 6ha would be BMV) would be permanently lost.
- 12.8 Overall therefore, 6ha of BMV would be lost and 150ha of BMV, which is currently used for arable crop production would be limited only to sheep farming during the lifetime of the scheme. The scheme therefore would result in the loss of a not insignificant quantity of BMV land over the 40 year period of its operation.
- 12.9 With regard to agricultural jobs, the Applicant states that there are 8 existing jobs within the DCO site limit and that the Solar Farm would generate 8 new jobs, the net result in terms of jobs being no loss or gain. It is not specified whether the existing agricultural jobs would be lost through redundancy or whether some of these workers would be retained to work elsewhere on existing farms.
- 12.10 Construction is proposed to take 24 months with the Applicant estimating that this would generate approximately 285 full time equivalent construction jobs per annum over this 2 year period with 128 of these predicted to be from the local area (within a 60 minute travel area). A further 64 full time equivalent indirect or induced jobs in the local area are predicted to be generated over the same period in sectors which would support the construction phase such as manufacturing and supplies to the construction process.

Adequacy of the Application/DCO

- 12.11 The Applicant's submission includes a detailed and substantial Socio-Economic Assessment which forms part of the Environmental Statement and gives thorough consideration to the impact of the proposed Solar Farm in this regard.
- 12.12 The scheme is not compliant with Local Policy insofar as it would result in the significant loss of best and most versatile agricultural land during the operational period of the scheme (circa 40 years). This impact is defined as temporary by the Applicant but is in fact a significant period of time during which the land would not be able to produce crops. There would be 150ha of land which sheep could graze upon (between the solar panels) and the

Applicant has set out in their submission how they have sought to avoid BMV as far as possible and that only 33% of the site as a whole actually consists of BMV. None the less, due to the scale of the proposal the impact would be significant and the scheme is not compliant with Local Policy in this regard.

- 12.13 With regard to employment, due to its nature the Solar Farm would generate very few jobs but these would match the number currently employed in the DCO area through agriculture. A significant number of construction jobs would be generated during the 2 year construction phase which would boost the local economy during that period.

13. Transport and Traffic

Development Plan Policies

- 13.1 Essex County Council and National Highways are the Statutory Highway Authorities for the area and provide the relevant statutory consultee advice to BDC in the assessment of all relevant planning applications within the District. The County Council are also a host authority for the Longfield DCO and BDC have worked alongside them from the outset of the process. ECC will provide their assessment on highway matters in their own LIR and BDC will primarily therefore defer to ECC on this matter.
- 13.2 For completeness however, relevant Development Plan Policies are identified below.
- 13.3 Policy LPP42 of the Adopted Local Plan requires development to make appropriate provision for all transport modes including pedestrians, cyclists, public transport and servicing, refuse and emergency vehicles. It also requires development to be consistent with the 'Essex Transport Strategy' Local Transport Plan for Essex (or its successors), for Developers to produce Travel Plans and Transport Assessments and it confirms that the Essex County Council Transportation Development Management Policies provide further detail on requirements relating to accessibility and access.
- 13.4 Policy LPP43 of the Adopted Local Plan relates to vehicle parking and requires that provision is made in accordance with the Essex Parking Standards (2009).
- 13.5 Policy LPP69 of the Adopted Local Plan relates to Protected Lanes and states that the Council '*will conserve the traditional landscape and nature conservation character of roads designated on the Proposals Map as Protected Lanes, including their verges, banks, ditches and natural features such as hedgerows, hedgerow trees and other structural elements contributing to the historic features of the lanes*'.

- 13.6 Proposals which fail to do this or which would *‘generate traffic of a type or amount inappropriate for the traditional landscape and nature conservation character of a protected lane, will not be permitted’*.

Key Local Issues

- 13.7 The primary concern from the BDC perspective is access to the Longfield site for construction vehicles during the construction and decommissioning stages, in particular HGV's. During the operational stage the submitted details show that vehicle movements would be of a modest scale however during the construction stage vehicle movements would be frequent and vehicles would be large construction type vehicles. This is particularly significant given the rural nature of the area and the fact that there are a number of protected lanes which cross the site.
- 13.8 The Environmental Statement cites peak movements of 50 HGV's a day to the main Solar site, travelling to/from the proposed main site access on Waltham Road via Cranham Road, Wheelers Hill and the A130 Essex Regiment Way. A maximum of 46 HGV trips are predicted associated with the extension to Bulls Lodge Substation travelling to/from the substation via the A12, Radial Distributor Road (currently under construction from Essex Regiment Way to the Boreham Interchange and unrelated to the Solar Farm proposal) and private road, the access here being taken from a private road.
- 13.9 The Applicant proposes off site highway improvements to support HGV's with works to achieve a minimum carriageway width of 6.0m along Wheelers Hill, Cranham Road and Waltham Road (i.e. the proposed construction vehicle route).

Adequacy of the Application/DCO

- 13.10 The submitted documents include a Transport Assessment and details relating to the routing of Construction Vehicles. Construction traffic routing would be controlled during both the construction and de-commissioning phases through the DCO, primarily by the Framework Construction Traffic Management Plan and the Outline Construction Environmental Management Plan. HGV movements would be restricted to certain routes (via Wheelers Hill and Cranham Road to the West, to prevent construction vehicles from using protected lanes. A north-south construction route through the Solar Farm site is also proposed to allow construction vehicles to access all site areas from a single point of access along with an HGV booking/monitoring system.
- 13.11 The Applicant's submission is thorough and provided that the routing of construction vehicles is secured with certainty to avoid the Protected Lanes in the vicinity then it would comply with the requirements of Local Planning

Policy in this respect. Overall compliance and acceptability in terms of highway safety is a matter for the relevant statutory Highway Authorities.

14. Waste Management

Development Plan Policies

- 14.1 ECC are the Minerals and Waste Authority for the Area. However, BDC Local Planning Policy does also contain a relevant section in relation to waste management. Policy LPP52 of the Adopted Local Plan states that *‘development proposals will incorporate measures for environmental sustainability throughout the construction, occupation and demolition of the development; in relation to energy conservation, water efficiency, waste separation (internal and external), climate change, flood resilience and resistant construction and the use of materials with low overall energy requirements’*.

Key local Issues

- 14.2 It is not anticipated that the proposed Solar Farm would generate any significant waste during its proposed operational period. However, the disposal of a very large number of PV Panels at the decommissioning stage of the project does represent a substantial challenge.

Adequacy of the Application/DCO

- 14.3 The Applicant’s submission includes a De-commissioning Strategy which states that a Decommissioning Environmental Management Plan would be required under the DCO and that the decommissioning process would involve the removal of all Solar PV array infrastructure and disposal in accordance with good practice and market conditions at the time. However, no specific information is set out with regard to how or where the huge number of Solar PV panels would be disposed of and whether they are likely to be able to be recycled in any way. In addition, the Strategy does not explain who would fund the de-commissioning of the site or what safeguards would be in place to finance this should the energy company cease to exist (i.e. go bankrupt) during the operational phase. More information is therefore required with respect to these matters and at present it is not clear if the scheme would comply with Local Policy in this regard.

15. Water Quality and Resources

Development Plan Policies

- 15.1 Policy SP7 of the Adopted Local Plan requires development to include measures to promote environmental sustainability including addressing water efficiency and provision of appropriate water and waste water measures.
- 15.2 Policy LPP70 of the Adopted Local Plan addresses the protection and enhancement of natural resources and states that development will not be permitted where there are unacceptable impacts upon surface and groundwater quality.

Key Local Issues

- 15.3 As set out in the flood risk section of this report the River Ter runs through the northern section of the application site. In addition, the cabling route for the proposal would need to cross (underneath) the Boreham tributary.

Adequacy of the Application/DCO

- 15.4 The application includes sufficient detail to assess the likely impacts of the scheme at this stage. BDC'S EHO has assessed the application from the general contamination perspective and has not raised any specific concerns. In relation to the impact upon the identified water courses, this is covered by the relevant legislation and BDC do not have any particular comment on this from the LPA perspective. The scheme complies with Local Policy.

16. Design

Development Plan Policies

- 16.1 Policy SP7 of the Adopted Local Plan relates to a series of general place shaping principles which include requiring all new development to respond positively to local character and context and to protect the amenity of residents.
- 16.2 Policy LPP52 of the Adopted Local Plan requires a high standard of design and layout in all development. It is a lengthy policy and includes 19 criteria which development should meet. Relevant criteria include:
- Protection of neighbour amenity with regard to privacy, overshadowing, loss of light and overbearing
 - Designs to be sensitive to local features of historic and landscape importance
 - Proposals to incorporate measures for environmental sustainability throughout the construction, occupation and demolition of the development
 - Layouts to promote a safe and secure environment, crime reduction and prevention, and shall encourage the related objective of enhancing personal safety with the maximum amount of natural surveillance of roads,

paths and all other open areas and all open spaces incorporated into schemes

- Landscape proposals should consist of native plant species and their design shall promote and enhance local biodiversity and historic environmental assets
- Lighting proposals need to be sensitively designed and appropriate for their locality
- Long term maintenance of landscaping and public areas required
- The development proposed should not have a detrimental impact on the safety of highways or any other public right of way and its users

Key Local Issues

- 16.3 The proposal is for a Solar Farm and therefore consists, in design terms, of set and standardised components such as solar panels, security fencing and transformers. However, Policies SP7 and LPP52 of the Adopted Local Plan are still of relevance.
- 16.4 Policy SP7's requirement for development to respond positively to its local character and context sets the overall policy framework with specific detail then added by the requirements of LPP52. The site is located in a very rural area which has not been previously developed and this context is a sensitive one with a distinctive character.
- 16.5 In terms of protection of neighbour amenity there are a number of residential properties in the locality many of which are also heritage assets. Landscape wise, there are features of local importance, in particular the Ter Valley.
- 16.6 LPP52's requirement for proposals to incorporate measures for environmental sustainability throughout the construction, occupation and demolition of the development is relevant as is the need for the developments layout to promote a safe and secure environment.
- 16.7 The landscape proposals for the scheme should consist of native plant species and their design should promote and enhance local biodiversity and historic environmental assets. In addition, their long term maintenance should be secured.
- 16.8 The site is located in a rural area and the need for any lighting proposals to be sensitively designed and appropriate for their locality is particularly important.
- 16.9 Finally, the policy requirement for the scheme to not have a detrimental impact on the safety of highways or any other public right of way and its users is relevant, particularly given the number of public rights of way which cross the site and the fact that it is surrounded by small rural lanes.

Adequacy of the Application/DCO

- 16.10 Overall, the Longfield proposal has evolved throughout the pre-application process and has responded to the local character and context as part of this process which is demonstrated in the applicant's DCO submission.
- 16.11 Impact upon existing residential amenity has been considered carefully and in many cases is linked to heritage impact, with dwellings also being listed. The application demonstrates how the scheme has for example been pulled away from listed dwellings to create buffer zones or to keep viewing corridors clear.
- 16.12 In terms of landscape impact, this has been assessed in detail in the applicants LVIA and again they have demonstrated how the scheme as evolved and responded to its landscape context. Braintree District Council's position on landscape matters is set out in detail under the landscape sections of this report.
- 16.13 With regard to promoting a safe and secure environment, the need to ensure that existing public rights of way would not become oppressive or tunnel like for their users was raised by jointly by the host authorities with the applicant at the pre-application stage and amendments were made to the scheme design in response to this. BDC's position on general highway safety matters are covered in the Highway section of this report.
- 16.14 Environmental sustainability throughout the construction phase could be addressed via a Construction Management Plan. A Decommissioning Plan could achieve the same for the demolition stage although further detail is needed in terms of how and where the solar panels could be disposed of.
- 16.15 Lighting could also be controlled by way of condition and the applicant specifies in their submission that the scheme would not require permanent lighting although sensor activated security lighting would be needed.
- 16.16 Overall, the scheme, subject to the above controls would in part comply with Local Policy. Landscape and heritage harm have however been identified and are covered in the relevant sections of this report.

17. Other Matters

- 17.1 The DCO application submission includes a Glint and Glare Assessment. The assessment considers the potential impacts on ground-based receptors such as roads, rail and residential dwellings as well as aviation assets. It identifies a 1km survey area around the Order limits for the assessment of residential receptors and road receptors and a 30km study area for aviation receptors.
- 17.2 The assessment makes the following key conclusions:

- 17.3 With regard to residential receptors, the impact would be classed as 'high' for 10 receptors and 'low' for seven receptors. With proposed mitigation measures in place impacts would be classed as 'low' for seven residential receptors and reduced to none for all others.
- 17.4 For road receptors, glint and glare impacts would be 'high' for eight receptors. With mitigation measures in place this would be reduced to 'none'.
- 17.5 For rail receptors the impact is classed as 'none' and no mitigation is required.
- 17.6 Finally, for aviation assets the impact is classed as 'none' and no mitigation is required.
- 17.7 In terms of the actual mitigation measures, these include hedgerows to be grown, infilled, gapped up and maintained to a height of at least 3m. Until the hedgerows reached a sufficient height a temporary 3m wooden solid hoarding would be required.
- 17.8 Overall, with mitigation measures in place the glint and glare impact of the proposal is found in the submitted assessment to be classed as negligible.
- 17.9 At face value the submitted Assessment appears to be a detailed and thorough report. However, Braintree District Council do not have available the relevant specialist expertise to make a technical assessment of the Applicant's Report in this respect and are aware that Chelmsford City Council do not either. Essex County Council are able to assess the highway impact of glint and glare only and their assessment will be included within their own LIR. Therefore BDC defer to ECC in relation to highway impact. Overall BDC are not in a position to make any particular commentary in relation to glint and glare but are aware that the Planning Inspectorate and Secretary of State will assess the Applicant's Glint and Glare Report as part of their assessment and decision making process.
- 17.10 It is however clear that the temporary wooden hoarding required as part of the proposed mitigation would be substantial in size and the duration for which it would be present is not clear. The visual impact of this is of concern to BDC.
- 17.11 Policy LPP70 of the Adopted Local Plan addresses safeguarding from hazards with regard to the health and safety of the public. The proposal includes a substantial battery energy storage system (BESS) and a detailed Battery Safety Management Plan has therefore been submitted following consultation with Essex Fire and Rescue Service.
- 17.12 The Management Plan is comprehensive and details measures which would be employed including the monitoring of the BESS by both onsite control

systems (including thermal monitoring of battery enclosures with automated cut out; automated cooling systems; emergency stop; smoke and gas detection and fire suppression measures) and also by a remote control room (manned by trained staff) on a 24/7 basis.

- 17.13 It also details access arrangements for the Fire Service; the provision of on-site firefighting facilities such as water tanks and rendezvous points as requested by Essex Fire and Rescue.
- 17.14 Overall, the Council consider that provided the proposal was constructed and managed in accordance with the details contained within the Battery Safety Management Plan then it would comply with Policy LPP70.

18. Summary

- 18.1 Braintree District Council as a host Local Authority have reviewed the application and evaluated the local impacts in the context of the Local Development Plan and other relevant policy.
- 18.2 The impact of the proposal has been addressed within the topic headings set out in the above report. The level of compliance with Local Planning Policy, including specific areas of non-compliance has also been set out in detail.
- 18.3 BDC consider that the Applicant has made extensive efforts to minimise the impact of the proposal overall. However key areas where the proposal would still have an impact which could not be mitigated are:
- Landscape harm
 - Heritage harm
 - Loss of areas of best and most versatile agricultural land
 - Impact upon Protected Lanes
- 18.4 For clarity, BDC defer to ECC as the statutory authority for the following matters:
- Highway impact
 - Archaeological impact
 - Flood risk
- 18.5 Overall, BDC consider that (subject to specific requests made in the above report for further information/clarification) the DCO in combination with the proper implementation of ancillary documents it provides for, or that the applicant has agreed to be bound by, in particular the:
- Outline Construction Environmental Management Plan (including Biosecurity Management Plan);

- Landscape Masterplan;
- Ecology Survey Recommendations;
- Biodiversity Net Gain Report;
- Biodiversity Design Strategy;
- Outline Landscape and Ecology Management Plan;
- Permissive Paths Plan;
- Construction Noise Monitoring Scheme;
- Outline Operational Environmental Management Plan;
- Framework Construction Traffic Management Plan;
- Battery Safety Management Plan;
- Decommissioning Environmental Management Plan;
- Outline Soils Resource Management Plan;

would ensure that the local impacts of the development are acceptable and would accord with Local Policy with regard to those topic areas where it is identified as such in the above report and that its local impact would be minimised with regard to those topic areas where it has been identified that harm (and Local Policy conflict) would still exist even with mitigation in place.